From: Bruce Moskowitz
To: Blackburn, Scott R.
Subject: [EXTERNAL] Contract review
Date: Tuesday, March 13, 2018 2:53:54 PM

Please call me at (b)(6) I will be on call with the doctors and CIO's.

Sent from my iPad
Bruce Moskowitz M.D.

From: Bruce Moskowitz
To: Windom, John H.; Blackburn, Scott R.
Cc: IP; (b)(6) @gmail.com
Subject: [EXTERNAL] EMR documents
Date: Thursday, March 15, 2018 10:52:11 AM

I still have not received the EMR documents to review. You have my NDA. Please send ASAP. I am a reasonable speed reader so you can include all pages.

Sent from my iPad
Bruce Moskowitz M.D.

From:	Bruce Moskowitz
To:	Blackburn, Scott R.; (b)(6) Windom, John H.
Cc:	DJS; IP; (b)(6) @gmail.com
Subject:	[EXTERNAL] NDA.pdf
Date:	Tuesday, March 13, 2018 3:04:42 PM
Attachments:	NDA.pdf

Sent from my iPad
Bruce Moskowitz M.D.

From: Bruce Moskowitz
To: Alaigh, Poonam, M.D.
Subject: [EXTERNAL] Re: CVS Health Follow Up
Date: Monday, March 06, 2017 6:17:59 PM

We should probably talk prior to the call me at your convenience (b)(6)

Sent from my iPad
Bruce Moskowitz M.D.

On Mar 6, 2017, at 9:43 AM, Alaigh, Poonam, M.D. <Poonam.Alaigh@va.gov> wrote:

> CVS Health Follow Up with Dr. Alaigh, Acting Under Secretary for Health.
>
> <mime-attachment.ics>

From: Bruce Moskowitz
To: Blackburn, Scott R.
Cc: Marc Sherman; Windom, John H.; (b)(6)
Subject: [EXTERNAL] Re: Dr. Coooper - Cloud expertise
Date: Monday, March 19, 2018 6:00:02 PM

Perfect

Sent from my iPad
Bruce Moskowitz M.D.

On Mar 19, 2018, at 2:45 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> FYI. Dr. Cooper's time tomorrow night is limited (he will be in between flights). Given he is a "single issue" guy; we are going to start the call at 7:30 and cover the Cloud issue from 7:30-8pm ET before everyone else joins at 8pm ET. I think we will have everyone except Stan Huff and Dr. Ko on the call. (b)(6) is working a time on Wednesday to get them on a call.
>
> Scott
>
> ---
>
> **From:** Blackburn, Scott R.
> **Sent:** Monday, March 19, 2018 2:40 PM
> **To:** (b)(6); Cooper, Leslie T., M.D.
> **Cc:** Windom, John H.; (b)(6); Short, John (VACO)
> **Subject:** RE: [EXTERNAL] VA EHR Call Update
>
> Thank you, Dr. Cooper. Dr. Moskowitz mentioned very specifically to me that we should get your perspective on cloud so that we know we have that part correct. I am thinking we cover that issue from 7:30-8pm ET before others join at 8pm.
>
> Thank you again for the support.
> Scott
>
> ---
>
> **From:** (b)(6)
> **Sent:** Monday, March 19, 2018 1:38 PM
> **To:** Cooper, Leslie T., M.D.
> **Cc:** Blackburn, Scott R.; Windom, John H.; (b)(6)
> **Subject:** RE: [EXTERNAL] VA EHR Call Update
>
> Dr. Cooper, thank you for your response. I have sent two outlook invites, one starting at 7:30PM EST for you to participate in as well as the 8PM EST with the group. Please let me know if you have any questions.
>
> Thanks,
> (b)(6)
>
> ---
>
> **From:** Cooper, Leslie T., M.D. (b)(6)@mayo.edu]

From: Bruce Moskowitz
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: EHR Call Update as of 8PM
Date: Saturday, March 17, 2018 8:41:04 AM

Will assist if needed

Sent from my iPad
Bruce Moskowitz M.D.

On Mar 16, 2018, at 9:44 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Bruce – I just wanted to give you a heads up. We might need your help to politely nudge a few folks. I'll send each a personal note in the morning to check in and make sure they have everything they (and understand the sense of urgency). If I don't have any luck, I'll let you know.
>
> I agree with your quicksand analogy. (b)(5) (b)(5) Cerner has strong incentive to sign March 31 or earlier (end of their financial quarter). So as long as don't find any major showstoppers, I believe we have a nice 2 week window to close this (and then get the hard work started).
>
> Thanks again for all your support. At McKinsey we used to use the term "demanding partner". You've been a great demanding partner to make sure we get this right.
>
> Scott
>
> ---
>
> **From:** (b)(6)
> **Sent:** Friday, March 16, 2018 8:01 PM
> **To:** Blackburn, Scott R.
> **Subject:** EHR Call Update as of 8PM
>
> Good evening Mr. Blackburn,
>
> As of 8PM I have received responses from a few more folks, the "x" indicates they are available.

	Sunday	Monday	Tuesday
Moskowitz	X	X	X
Perlmutter			
Sherman			
Reel	X		
Huff		X	
Rasu			
Manis			X
Ko			
Cooper			
Karson			X
Windom	X	X	X
Blackburn	X	X	X
(b)(6)	X	X	X

confirmed for Monday at 2PM contract overview

From: Marc Sherman
To: Blackburn, Scott R.; Bruce Moskowitz
Subject: [EXTERNAL] Re: FW: VA EHR Call
Date: Monday, March 19, 2018 8:21:56 AM

Scott

In response to your question, I will be on the call at noon today.

Marc

Marc Sherman
(b)(6)

On Mar 18, 2018 3:11 PM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:

> Bruce/Marc – I hope you are both having a great weekend.
>
> We have a call scheduled from noon-12:45 tomorrow. The intent of this was to have our contracting guys (John Windom, (b)(6) walk you through how to read the government contract (which is obviously very different from typical private sector contracts). I just want to make sure you are clear on the purpose of this call and check to make sure you still want to do this. We did this with each of the CIOs/Doctors last week.
>
> Scott
>
> _____
> **From:** (b)(6)
> **Sent:** Sunday, March 18, 2018 2:36 PM
> **To:** Blackburn, Scott R.
> **Subject:** RE: VA EHR Call
>
> Mr. Blackburn, I had scheduled this call with Dr. Bruce and Marc Sherman for the contract overview. Do you want to keep it or can I cancel it? Thanks, (b)(6)
>
> -----Original Appointment-----
> **From:** VA CIO Executive Schedule
> **Sent:** Thursday, March 15, 2018 11:23 AM
> **To:** VA CIO Executive Schedule; (b)(6) Blackburn, Scott R.; Windom, John H.; (b)(6) @Bruce Moskowitz,MD; Marc Sherman; Bruce Moskowitz
> **Subject:** VA EHR Call
> **When:** Monday, March 19, 2018 12:00 PM-12:45 PM (UTC-05:00) Eastern Time (US & Canada).
> **Where:** (b)(6)

From: Marc Sherman
To: Blackburn, Scott R.
Cc: Bruce Moskowitz; (b)(6)
Subject: [EXTERNAL] Re: VA EHR call
Date: Sunday, March 18, 2018 12:37:23 PM

Yes, that works for me.

Marc Sherman
(b)(6)

On Mar 18, 2018 12:28 PM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:

> Bruce/Marc – it is looking like Tuesday 8pm ET is going to work best for our CIOs/Doctors. We will have at least 4 people confirmed (Manis, Reel, Shretha and Karson; likely Stan Huff as well which would make 5). Dr. Cooper I know is a single issue SME so we can probably do that one separately. Dr. Ko has a tough schedule all this week.
>
> Would Tuesday 8pm work for you/Marc? If so – we will press for that time. I will get everyone from VA who needs to be on the call, on the call at that time.
>
> Thanks again for the help,
>
> Scott
>
> ---
>
> **From:** (b)(6)
> **Sent:** Saturday, March 17, 2018 5:29 PM
> **To:** Blackburn, Scott R.
> **Subject:** RE: [EXTERNAL] RE: Scheduling a Call Regarding Feedback on VA EHR
>
> It looks like if we do 8PM on Tuesday we can get:
>
> Manis
>
> Reel
>
> Rasu
>
> Karson (probably joining late)

From: Bruce Moskowitz
To: Blackburn, Scott R.
Cc: Marc Sherman; (b)(6)
Subject: [EXTERNAL] Re: VA EHR call
Date: Sunday, March 18, 2018 1:50:38 PM

Ok

Sent from my iPad
Bruce Moskowitz M.D.

On Mar 18, 2018, at 12:28 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Bruce/Marc – it is looking like Tuesday 8pm ET is going to work best for our CIOs/Doctors. We will have at least 4 people confirmed (Manis, Reel, Shretha and Karson; likely Stan Huff as well which would make 5). Dr. Cooper I know is a single issue SME so we can probably do that one separately. Dr. Ko has a tough schedule all this week.
>
> Would Tuesday 8pm work for you/Marc? If so – we will press for that time. I will get everyone from VA who needs to be on the call, on the call at that time.
>
> Thanks again for the help,
> Scott
>
> ---
>
> **From:** (b)(6)
> **Sent:** Saturday, March 17, 2018 5:29 PM
> **To:** Blackburn, Scott R.
> **Subject:** RE: [EXTERNAL] RE: Scheduling a Call Regarding Feedback on VA EHR
>
> It looks like if we do 8PM on Tuesday we can get:
>
> Manis
> Reel
> Rasu
> Karson (probably joining late)
>
> I know Dr. Ko is on travel Tuesday, but I haven't heard what time he lands.
> I think Dr. Cooper is also on travel and has not responded to the last email.
> Dr. Huff has not responded to the last email.
>
> So maybe we go with Tuesday at 8PM. Depending on what Ko, Cooper and Huff say we can let Dr. Bruce engage with them if needed.
>
> Let me know…
>
> (b)(6)

From: Bruce Moskowitz
To: Blackburn, Scott R.
Cc: Marc Sherman; (b)(6)
Subject: [EXTERNAL] Re: VA EHR Call
Date: Sunday, March 18, 2018 4:58:11 PM

Noted

Sent from my iPad
Bruce Moskowitz M.D.

On Mar 18, 2018, at 3:11 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Bruce/Marc – I hope you are both having a great weekend.
>
> We have a call scheduled from noon-12:45 tomorrow. The intent of this was to have our contracting guys (John Windom, (b)(6)) walk you through how to read the government contract (which is obviously very different from typical private sector contracts). I just want to make sure you are clear on the purpose of this call and check to make sure you still want to do this. We did this with each of the CIOs/Doctors last week.
>
> Scott
>
> _____
> **From:** (b)(6)
> **Sent:** Sunday, March 18, 2018 2:36 PM
> **To:** Blackburn, Scott R.
> **Subject:** RE: VA EHR Call
>
> Mr. Blackburn, I had scheduled this call with Dr. Bruce and Marc Sherman for the contract overview. Do you want to keep it or can I cancel it? Thanks, (b)(6)
>
> -----Original Appointment-----
> **From:** VA CIO Executive Schedule
> **Sent:** Thursday, March 15, 2018 11:23 AM
> **To:** VA CIO Executive Schedule; (b)(6) Blackburn, Scott R.; Windom, John H.; (b)(6) @Bruce Moskowitz,MD; Marc Sherman; Bruce Moskowitz
> **Subject:** VA EHR Call
> **When:** Monday, March 19, 2018 12:00 PM-12:45 PM (UTC-05:00) Eastern Time (US & Canada).
> **Where:** (b)(6)

From: Bruce Moskowitz
To: Marc Sherman
Cc: Blackburn, Scott R. (b)(6) @mgh.harvard.edu
Subject: [EXTERNAL] Re: VA interoperability - outside experts
Date: Tuesday, January 02, 2018 6:16:23 AM

Also is there a call in number

Sent from my iPad
Bruce Moskowitz M.D.

On Jan 2, 2018, at 6:09 AM, Marc Sherman <(b)(6) @gmail.com> wrote:

> Scott,
>
> Andrew Karson will likely be able to attend the January 5 VA interoperability summit. Can you please send Andrew all of the details (about purpose, logistics etc) and copy me and Bruce? I have included Andrew on this email so you each have contact info of the other.
>
> Marc
>
> Marc Sherman
> (b)(6)
>
> On Dec 29, 2017 5:43 PM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:
>
> > Marc – Happy New Year! I hope you are enjoying the holidays.
> >
> > As I mentioned previously, MITRE is helping us get outside expert opinions on what we need to demand (from Cerner or elsewhere) to meet our interoperability needs. I just found out they are putting together an all-day expert panel on January 5 at MITRE in McLean VA. Frank Opelka, who you recommended, will be there as will Cris Ross (CIO from Mayo Clinic) who MITRE confirmed independently. The list of confirmed participants is below (I know they are working on confirming a few others).
> >
> > I know it is short notice, and over the holidays, but is there anyone else that you/Bruce would recommend MITRE include?
> >
> > Current list of participants:

- Aneesh Chopra, President, CareJourney, former United States Chief Technology Officer
- Cris Ross, CIO, Mayo Clinic
- Carla Smith, President, HMMS
- Ryan Howells, Principal, Leavitt Partners, LLC (recommended by Chris Liddell, Office of American Innovation)
- Paul R. Sutton, MD, PhD, University of Washington
- Frank Opelka, MD, American College of Surgeons
- Kenneth Mandl, MD, MPH, Boston Children's Hospital

From: Marc Sherman
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: VA interoperability - outside experts
Date: Sunday, December 31, 2017 12:33:34 PM

Scott

This is great. Thanks for keeping me in the loop. I think your effort will be significantly informed of you were able to have Chris Liddell, Dr. Peter Pronovost (Hopkins) and Andrew Karson (Mass General). Peter and Andrew are experts in patient risks related to EHR. Would you like me/Bruce reach out to Peter and Andrew? I assume you will reach out to Chris (if you haven't already.

A very Happy & Healthy New Year to you and your family.

Marc

Marc Sherman
(b)(6)

On Dec 29, 2017 5:43 PM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:

> Marc – Happy New Year! I hope you are enjoying the holidays.
>
> As I mentioned previously, MITRE is helping us get outside expert opinions on what we need to demand (from Cerner or elsewhere) to meet our interoperability needs. I just found out they are putting together an all-day expert panel on January 5 at MITRE in McLean VA. Frank Opelka, who you recommended, will be there as will Cris Ross (CIO from Mayo Clinic) who MITRE confirmed independently. The list of confirmed participants is below (I know they are working on confirming a few others).
>
> I know it is short notice, and over the holidays, but is there anyone else that you/Bruce would recommend MITRE include?
>
> Current list of participants:
>
> - Aneesh Chopra, President, CareJourney, former United States Chief Technology Officer
> - Cris Ross, CIO, Mayo Clinic
> - Carla Smith, President, HMMS
> - Ryan Howells, Principal, Leavitt Partners, LLC (recommended by Chris Liddell, Office

of American Innovation)

- Paul R. Sutton, MD, PhD, University of Washington
- Frank Opelka, MD, American College of Surgeons
- Kenneth Mandl, MD, MPH, Boston Children's Hospital

Scott

From: Marc Sherman [(b)(6)@gmail.com]
Sent: Thursday, December 21, 2017 9:27 AM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: FW: Follow ups

All three of these items are actively in progress. I know they are all working on #1. On the third item, Bruce has identified multiple candidates and I will be talking to him later today and will get a more detailed update and get back to you.

On Wed, Dec 20, 2017 at 2:53 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

Marc – I hope you are having a great week. I want to follow up on 3 things:

- Any progress on the punch-list of issues from the 5 CIOs? Is there anything I can do to help this along? The Secretary has been nagging me about this.

- Were you able to connect with Bruce and/or the 5 CIOs to see if anyone of them would be willing to help with a January external review of interoperability solutions? This is similar to the punch-list but will be more public. As I mentioned, MITRE will be helping put this together for us. The Office of American Innovation has given us a few suggestions that we will include. We have connected with Dr. Frank Opelka from the American College of Physicians and he will be working together with us on this.

- Any luck identifying an executive that would be willing to come on as a government employee? The Secretary has also been nagging me about this.

Thanks so much! I hope you are enjoying the holidays and will hopefully get some time off over the break.

Scott

From: Blackburn, Scott R.
Sent: Thursday, December 14, 2017 12:13 AM
To: Marc Sherman
Subject: Follow ups

Marc,

It was great meeting you in person earlier this week. Thank you so much for the offers to help. I really appreciate all that you and others are doing.

I just wanted to follow up on 3 items we discussed.

#1) Identifying an experienced executive willing to become a government employee ('insider') to help us drive this from the inside. As discussed, outside advisors/consultants can only do so much in government due to ethics laws, etc. We really need someone on the inside. The pay stinks (I took a pay cut from $1m+ down to $171k per year) and it is a pain in the neck – but also tremendously fulfilling. This person is really going to want to do it for the greater good. There are two options that could work.

- A Kurt Heyssel like executive that we could hire as a "India Pale Ale" (or whatever IPA stands for). This would be one of the 5 CIOs #2 or something like that.

- A former CIO that we can trust that doesn't need the money. We have the ability to quickly hire "experts" on a non-competitive basis. Again, the pay will stink so anyone looking for something fair/respectable need not apply. This will truly be "public service".

#2) The punch-list of issues that the 5 CIOs have volunteered. Do you think this is possible for us to get by the end of next week (December 22)? This would allow me to get our team to work on this over the holiday week and get a gap analysis done.

#3) A date in early January. If you can give me a date in early January, we will make it work. I will also work to make sure that we do this within FACA guidelines so we don't inadvertently break any rules.

Thanks again for all the support. On behalf of my fellow Veterans, it is very much appreciated.

Scott

Scott Blackburn

Acting CIO & Executive-in-Charge, Office of Information & Technology

Department of Veterans Affairs

VA EHRM RTM Non-Functional Requirements Summary

Updated: 22Jan2018

VA RTM Non-Functional Requirements

Requirement Type	Count
Final	
508 Compliance	1
Access Management	20
Data Management	4
Identity Management	21
Information Assurance / Security	11
Interoperability	19
Pharmacy	7
Reliability / Scalability / Maintanability	4
Synchronization: Low-Comm / No-Comm	1
SLA	12
Final Total	**100**

VA Informatics Requirements

Requirement Type / Cat	Count
Final	
Compatibility	13
Functional Suitability	15
Maintainability	6
Usability	4
Final Total	**38**

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
	Informatics	Time Categories for Informatics capabilites below • Now: Capability Exists in Current Cerner Product • Now+ : Capability substantially exists today, progress is planned or expected • 1-3: Capability could exist in 1-3 years • >3: Capability will take longer than 3 years					
VA-NF-T13	Informatics - Data Content	VHA must be able to capture complete, accurate, richly detailed health data in a “close to clinician meaning” manner using accepted standards in order to deliver high quality, consistent care to Veterans. ML1 [>3]	1. Cerner can import VA SNOMED Extensions including VA provided versioned post-coordinated expressions as single SCTID and integrate and use that content in the same manner as current SNOMED– [NOW] 2. Cerner could provide support for the capture of post-coordinated expressions [>3 years]	Final			
VA-NF-T14	Informatics - Data Content	In the process of capturing complete and accurate records, VHA must minimize unnecessary documentation burdens that clinicians face. These burdens decrease face-to-face time for clinical care, thereby impairing care quality, patient satisfaction, and clinician satisfaction. Integrated, re-usable, standards-based, computable terminology allows clinicians to “document once” and the system to re-use that data “many times”. (Cognitive Support) ML2 [NOW]	[NOW]	Final			
VA-NF-T15	Informatics - Data Content	VHA must be able to ingest standards-based data and information from medical devices or via manual entry with associated metadata such as provenance [TP1] [NOW]	1. The system will be able to ingest and display blood pressures sorted by measurement or sorted by time integrated across devices [NOW] 2. The system will be able to ingest and display oxygen saturation percentage sorted by sorted by time integrated across devices [NOW]	Final			
VA-NF-T16	Informatics - Data Content	VHA must be able to access validated and unvalidated standards-based medical device data for research and analysis in development of evidenced -based practice. Validated device data should be part of the health record and unvalidated device data should be stored but not part of the patient’s record [TP2] [> 3]	The system can be configured to export unvalidated sampled and raw device data to a 3rd party archive [>3]	Final			
VA-NF-T17	Informatics - Data Content	VHA needs to be able to track patient location in any care venue via multiple techniques such as manual entry or radio-frequency wrist band. Data should be able to be integrated across methods and over time. VHA also needs to be able to tie location data to organizational units (wards, clinics etc) TP3	1. System can support manual location entry [NOW] 2. System can support automated data entry from VA-provided RFID infrastructure [NOW]	Final			
VA-NF-T18	Informatics - Data Reuse	VHA must be able to use clinical data collected at the point of care (e.g., exam rooms, patient's home) for clinical decision support and research regardless of the care site, clinic type, provider type (including patients) or data entry form employed. Clinical data elements must be collected in a standardized and consistent way across venues to facilitate reuse. (Data exchange, CDS, quality) SHB1 [NOW]	1. System can support an invokable service that determines and returns class membership [NOW] 2. System will provide the invokable service with content provided by VA [1-3] 3. System provides the tools to develop the content [>3]	Final			
VA-NF-T19	Informatics - Data Reuse	VHA must be able to access and reuse its clinical data in perpetuity without licensing restrictions. (Data exchange) SHB2		Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
	Informatics	Time Categories for Informatics capabilites below • Now: Capability Exists in Current Cerner Product • Now+ : Capability substantially exists today, progress is planned or expected • 1-3: Capability could exist in 1-3 years • >3: Capability will take longer than 3 years					
VA-NF-T13	Informatics - Data Content	VHA must be able to capture complete, accurate, richly detailed health data in a "close to clinician meaning" manner using accepted standards in order to deliver high quality, consistent care to Veterans. ML1 [>3]	1. Cerner can import VA SNOMED Extensions including VA provided versioned post-coordinated expressions as single SCTID and integrate and use that content in the same manner as current SNOMED– [NOW] 2. Cerner could provide support for the capture of post-coordinated expressions [>3 years]	Final			
VA-NF-T14	Informatics - Data Content	In the process of capturing complete and accurate records, VHA must minimize unnecessary documentation burdens that clinicians face. These burdens decrease face-to-face time for clinical care, thereby impairing care quality, patient satisfaction, and clinician satisfaction. Integrated, re-usable, standards-based, computable terminology allows clinicians to "document once" and the system to re-use that data "many times". (Cognitive Support) ML2 [NOW]	[NOW]	Final			
VA-NF-T15	Informatics - Data Content	VHA must be able to ingest standards-based data and information from medical devices or via manual entry with associated metadata such as provenance [TP1] [NOW]	1. The system will be able to ingest and display blood pressures sorted by measurement or sorted by time integrated across devices [NOW] 2. The system will be able to ingest and display oxygen saturation percentage sorted by sorted by time integrated across devices [NOW]	Final			
VA-NF-T16	Informatics - Data Content	VHA must be able to access validated and unvalidated standards-based medical device data for research and analysis in development of evidenced -based practice. Validated device data should be part of the health record and unvalidated device data should be stored but not part of the patient's record [TP2] [> 3]	The system can be configured to export unvalidated sampled and raw device data to a 3rd party archive [>3]	Final			
VA-NF-T17	Informatics - Data Content	VHA needs to be able to track patient location in any care venue via multiple techniques such as manual entry or radio-frequency wrist band. Data should be able to be integrated across methods and over time. VHA also needs to be able to tie location data to organizational units (wards, clinics etc) TP3	1. System can support manual location entry [NOW] 2. System can support automated data entry from VA-provided RFID infrastructure [NOW]	Final			
VA-NF-T18	Informatics - Data Reuse	VHA must be able to use clinical data collected at the point of care (e.g., exam rooms, patient's home) for clinical decision support and research regardless of the care site, clinic type, provider type (including patients) or data entry form employed. Clinical data elements must be collected in a standardized and consistent way across venues to facilitate reuse. (Data exchange, CDS, quality) SHB1 [NOW]	1. System can support an invokable service that determines and returns class membership [NOW] 2. System will provide the invokable service with content provided by VA [1-3] 3. System provides the tools to develop the content [>3]	Final			
VA-NF-T19	Informatics - Data Reuse	VHA must be able to access and reuse its clinical data in perpetuity without licensing restrictions. (Data exchange) SHB2		Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T20	Informatics - Care Integration	VHA must operate with academic affiliate partners, Community Care partners, DoD, and public health agencies. Standards-based clinical terminology is required for such operations across a continuum of care. (Data Exchange, Process Continuity) ML3 [NOW]	1. Standards-based, fine grained observations from the point of care, such as "diminished sensation to light touch on the plantar surfaces of both feet" must be able to be exported to care partners as standard-based coded data. [1-3] 2. Standards-based, fine grained observations from the point of care, such as "diminished sensation to light touch on the plantar surfaces of both feet" must be able to be imported from care partners as standards-based coded data [NOW] and formally "classified" via an invokable service [1-3]	Final			
VA-NF-T21	Informatics - Care Integration	VHA must be able to provide demonstrably high-quality collaborative care in the community without delay or waste or elevated risk. (Data Exchange, Process Continuity, Quality, Safety Value) SHB6 [NOW +]	1. The system must be able to import, integrate and run decision support rules for quality measures such as opiate safety that include data elements regarding opiate prescriptions, urine drug screen lab test results, and the checking of state prescription drug monitoring databases. Data elements must come from at least one non-VA/DoD non-Cerner healthcare provider. Rules will identify patients who have received more than one prescription for opiates in the past year who have an illicit drug found in their urine and who have not had a state pdmp check in the same time frame. [NOW +]	Final			
VA-NF-T22	Informatics - Care Integration	VHA requires effective integration of a longitudinal record from multiple sources despite technology and information representation disparities via concurrent support of multiple versions of data structures in support of both standards transition periods to newer releases, and interchange with systems supporting older versions of the standard (Data Exchange, Evolution) KSR2 [NOW]	1. System will support the use of multiple data models (eg, CEM, CIMI, ANF) [1-3] 2. System will support STAMP versioning for all data models and standard terminologies. [1-3] 3. System will support data exchange via multiple models based on the requirements of the exchange partner [1-3]	Final			
VA-NF-T23	Informatics - Care Integration	VA must be able to seamlessly integrate with HIE and external-to-EHR shared services to provide for a seamless experience and to more effectively integrate in community care efforts, as well as with other parts of VA (e.g., identity management). This includes but is not limited to the EHR product ability to support external shared services (SOA services, such as identity management, care plan service, scheduling, etc.) accessed via standards-based APIs. (Process Continuity, Evolution, Extension) KSR5 [NOW +]	1. Monitor and measure the number of FHIR interfaces realized with external networks/provider organizations [NOW] 2. Demonstrate the ability to conduct shared care planning with non-VA actors , such as a care-coordination Smart on FHIR app [1-3]	Final			
VA-NF-T24	Informatics - Care Integration	VHA requires the ability to deliver seamless care via distributed care processes, both as a referrer to external care and a referral recipient for externally-initiated care activities. (Data Exchange, Process Continuity) KSR7 [NOW +]	VHA requires the ability to deliver seamless care via distributed care processes, both as a referrer to external care and a referral recipient for externally-initiated care activities. (Data Exchange, Process Continuity) KSR7 [NOW +]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T20	Informatics - Care Integration	VHA must operate with academic affiliate partners, Community Care partners, DoD, and public health agencies. Standards-based clinical terminology is required for such operations across a continuum of care. (Data Exchange, Process Continuity) ML3 [NOW]	1. Standards-based, fine grained observations from the point of care, such as "diminished sensation to light touch on the plantar surfaces of both feet" must be able to be exported to care partners as standard-based coded data. [1-3] 2. Standards-based, fine grained observations from the point of care, such as "diminished sensation to light touch on the plantar surfaces of both feet" must be able to be imported from care partners as standards-based coded data [NOW] and formally "classified" via an invokable service [1-3]	Final			
VA-NF-T21	Informatics - Care Integration	VHA must be able to provide demonstrably high-quality collaborative care in the community without delay or waste or elevated risk. (Data Exchange, Process Continuity, Quality, Safety Value) SHB6 [NOW +]	1. The system must be able to import, integrate and run decision support rules for quality measures such as opiate safety that include data elements regarding opiate prescriptions, urine drug screen lab test results, and the checking of state prescription drug monitoring databases. Data elements must come from at least one non-VA/DoD non-Cerner healthcare provider. Rules will identify patients who have received more than one prescription for opiates in the past year who have an illicit drug found in their urine and who have not had a state pdmp check in the same time frame. [NOW +]	Final			
VA-NF-T22	Informatics - Care Integration	VHA requires effective integration of a longitudinal record from multiple sources despite technology and information representation disparities via concurrent support of multiple versions of data structures in support of both standards transition periods to newer releases, and interchange with systems supporting older versions of the standard (Data Exchange, Evolution) KSR2 [NOW]	1. System will support the use of multiple data models (eg, CEM, CIMI, ANF) [1-3] 2. System will support STAMP versioning for all data models and standard terminologies. [1-3] 3. System will support data exchange via multiple models based on the requirements of the exchange partner [1-3]	Final			
VA-NF-T23	Informatics - Care Integration	VA must be able to seamlessly integrate with HIE and external-to-EHR shared services to provide for a seamless experience and to more effectively integrate in community care efforts, as well as with other parts of VA (e.g., identity management). This includes but is not limited to the EHR product ability to support external shared services (SOA services, such as identity management, care plan service, scheduling, etc.) accessed via standards-based APIs. (Process Continuity, Evolution, Extension) KSR5 [NOW +]	1. Monitor and measure the number of FHIR interfaces realized with external networks/provider organizations [NOW] 2. Demonstrate the ability to conduct shared care planning with non-VA actors , such as a care-coordination Smart on FHIR app [1-3]	Final			
VA-NF-T24	Informatics - Care Integration	VHA requires the ability to deliver seamless care via distributed care processes, both as a referrer to external care and a referral recipient for externally-initiated care activities. (Data Exchange, Process Continuity) KSR7 [NOW +]	VHA requires the ability to deliver seamless care via distributed care processes, both as a referrer to external care and a referral recipient for externally-initiated care activities. (Data Exchange, Process Continuity) KSR7 [NOW +]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T25	Informatics - Clinical Decision Support	VA providers and patients EHR experience should be enhanced based on clinical knowledge, analytics, context and situational awareness. (Cognitive Support, innovation) BG3 [NOW]	1. System will be able to present a curated (role, venue, problem - oriented view of a patient's record that includes clinically relevant medications, labs, procedures and progress notes for each problem on the problem list. [NOW] This view will be driven by standards-based expressions of clinical knowledge ("insulin treats diabetes"; "HgBa1c lab performed for diabetes") [>3] 2. The view will change when the knowledge base changes, for example to include a new medication that treats diabetes [>3] 3. The view will be extended to include additional data types, including psycho-social factors that impact health [1-3] 4. Patient-facing components will use terms appropriate for laymen [NOW]	Final			
VA-NF-T26	Informatics - Clinical Decision Support	VA must be able to utilize specialty external (non-Cerner) standards-based clinical decision support capabilities, such as predictive analytics and enhanced point-of-care decision support to improve clinical quality management and VA clinical efficacy. (CDS, Cognitive Support, Extension, Innovation) KSR4 [1-3]	Enumerate commercially-available third-party COTS CDS offerings capable of integration with Cerner via standards-based interfaces (including but not necessarily limited to support for FHIR APIs and/or OMG CDS API/ HL7 CDS APIs (eg, CDS Hooks) [1-3]	Final			
VA-NF-T27	Informatics - Clinical Decision Support	VA requires a sandbox to support VA developing the knowledge necessary to leverage the strengths of the new EHR and to align CDS efforts with the to-be host system. The sandbox shall facilitate the following: conforming to national HIT standards, capitalizing on open-source resources, capitalizing on the experience and efforts of Department of Defense and other federal partners, preserving and building on decades of institutional knowledge and experience as represented in VistA and CPRS, future-proofing knowledge-based systems, customizing CDS to account for site-specific variation and available resources and determining points of necessary standardization within VA, creating best practices for developing multi-tiered CDS and other forms of user performance augmentation, developing process for supporting design, implementation, and evaluation of CDS to maximize impact. (CDS, Cognitive Support, Innovation) DLM4 [NOW]	1. The EHR Sanbox will use SNOMED CT for Problem List Entries [NOW] 2. The EHR sandbox will include open source components of InfoButtons [NOW] 3. The EHR sandbox will include rapid prototyping tools for user centered design such as balsamiq. [1-3]	Final			
VA-NF-T28	Informatics - Clinical Decision Support	VHA requires tools that facilitate decision making by the healthcare team and the homecare team including computerized alerts and reminders to care providers and patients; clinical guidelines; condition-specific order sets; focused patient data reports and summaries; documentation templates; diagnostic support, and contextually relevant reference information (CDS) DLM1 [NOW]		Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T25	Informatics - Clinical Decision Support	VA providers and patients EHR experience should be enhanced based on clinical knowledge, analytics, context and situational awareness. (Cognitive Support, innovation) BG3 [NOW]	1. System will be able to present a curated (role, venue, problem - oriented view of a patient's record that includes clinically relevant medications, labs, procedures and progress notes for each problem on the problem list. [NOW] This view will be driven by standards-based expressions of clinical knowledge ("insulin treats diabetes"; "HgBa1c lab performed for diabetes") [>3] 2. The view will change when the knowledge base changes, for example to include a new medication that treats diabetes [>3] 3. The view will be extended to include additional data types, including psycho-social factors that impact health [1-3] 4. Patient-facing components will use terms appropriate for laymen [NOW]	Final			
VA-NF-T26	Informatics - Clinical Decision Support	VA must be able to utilize specialty external (non-Cerner) standards-based clinical decision support capabilities, such as predictive analytics and enhanced point-of-care decision support to improve clinical quality management and VA clinical efficacy. (CDS, Cognitive Support, Extension, Innovation) KSR4 [1-3]	Enumerate commercially-available third-party COTS CDS offerings capable of integration with Cerner via standards-based interfaces (including but not necessarily limited to support for FHIR APIs and/or OMG CDS API/ HL7 CDS APIs (eg, CDS Hooks) [1-3]	Final			
VA-NF-T27	Informatics - Clinical Decision Support	VA requires a sandbox to support VA developing the knowledge necessary to leverage the strengths of the new EHR and to align CDS efforts with the to-be host system. The sandbox shall facilitate the following: conforming to national HIT standards, capitalizing on open-source resources, capitalizing on the experience and efforts of Department of Defense and other federal partners, preserving and building on decades of institutional knowledge and experience as represented in VistA and CPRS, future-proofing knowledge-based systems, customizing CDS to account for site-specific variation and available resources and determining points of necessary standardization within VA, creating best practices for developing multi-tiered CDS and other forms of user performance augmentation, developing process for supporting design, implementation, and evaluation of CDS to maximize impact. (CDS, Cognitive Support, Innovation) DLM4 [NOW]	1. The EHR Sanbox will use SNOMED CT for Problem List Entries [NOW] 2. The EHR sandbox will include open source components of InfoButtons [NOW] 3. The EHR sandbox will include rapid prototyping tools for user centered design such as balsamiq. [1-3]	Final			
VA-NF-T28	Informatics - Clinical Decision Support	VHA requires tools that facilitate decision making by the healthcare team and the homecare team including computerized alerts and reminders to care providers and patients; clinical guidelines; condition-specific order sets; focused patient data reports and summaries; documentation templates; diagnostic support, and contextually relevant reference information (CDS) DLM1 [NOW]		Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T29	Informatics - Clinical Decision Support	VHA requires information that is filtered, organized and presented in a way that supports the current workflow, allowing the user to make an informed decision quickly and take action. (CDS, Cognitive Support, Innovation) DLM2 [NOW]	1. Users shall be able to configure the workspace to display information that meets their individual requirements: [NOW] data types filtered by specialty needs, timeframes, display patterns [>3] 2. Users shall be able to filter medications by drug class [NOW] 3. Users shall be able to filter progress notes by multiple parameters, such as multiple relevant specialties. [NOW] 4. System able to maintain and update state of user-patient activity in terms of context, setting, workflow process state, cognitive/logic tasks that are appropriate to this state, other parameters to be defined. [3+] 5. Context model definition in terms of axes that address aspects such as in previous bullet. [>3] 6. Ability to use such state descriptions and context to select appropriate CDS [>3] 7. EHR supports "snapshot or dashboard view" of individual patients that is configurable based on user specialty/preferences [NOW] 8. EHR supports user selected filters for result tables that allow quick analysis of patient information [NOW]	Final			
VA-NF-T30	Informatics - Clinical Decision Support	VHA requires different types of CDS appropriate to optimize different processes of care in different settings and across venues (CDS, Process Continuity, Data Exchange, Extension, Innovation) DLM3 [NOW]	1. Users shall be able to view data that is comingled by data type, in time sequence, regardless of the source of the data whether it be within or outside of VHA and DoD [NOW, +] 2. Users shall be able to use both custom and enterprise standard dashboards to address needs for cohorts of patients. [NOW] 3. There shall be an enterprise wide governance process that manages alerts and other CDS formats to maximize their efficiency [VA] 4. CDS tools shall be standards based, and shareable within and outside of DoD and the VA [NOW, +] 6. Organization of CDS artifacts in a knowledge base with metatags indicating context parameters that characterize where they are applicable [1-3] 7. EHR supports multiple CDS approaches including: • internal alerts/reminders, [NOW] • access to external CDS modules via standards based data exchange (HL7 DSS/CDS Hooks, etc), [NOW +] • context specific InfoButton links to document based CDS [NOW]	Final			
VA-NF-T31	Informatics - Clinical Decision Support	VA requires CDS applications that operate as components of a comprehensive EHR system. DLM6 [NOW]	1. Ability to maintain and support an external shared knowledge management repository that can be accessed through EHRs, either by APIs or by import/synchronization with host EHR systems [>3] 2. CDS applications are patient context aware (eg. CCOW or SMART apps) and not requiring multiple signon's [NOW, +]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T29	Informatics - Clinical Decision Support	VHA requires information that is filtered, organized and presented in a way that supports the current workflow, allowing the user to make an informed decision quickly and take action. (CDS, Cognitive Support, Innovation) DLM2 [NOW]	1. Users shall be able to configure the workspace to display information that meets their individual requirements: [NOW] data types filtered by specialty needs, timeframes, display patterns [>3] 2. Users shall be able to filter medications by drug class [NOW] 3. Users shall be able to filter progress notes by multiple parameters, such as multiple relevant specialties. [NOW] 4. System able to maintain and update state of user-patient activity in terms of context, setting, workflow process state, cognitive/logic tasks that are appropriate to this state, other parameters to be defined. [3+] 5. Context model definition in terms of axes that address aspects such as in previous bullet. [>3] 6. Ability to use such state descriptions and context to select appropriate CDS [>3] 7. EHR supports "snapshot or dashboard view" of individual patients that is configurable based on user specialty/preferences [NOW] 8. EHR supports user selected filters for result tables that allow quick analysis of patient information [NOW]	Final			
VA-NF-T30	Informatics - Clinical Decision Support	VHA requires different types of CDS appropriate to optimize different processes of care in different settings and across venues (CDS, Process Continuity, Data Exchange, Extension, Innovation) DLM3 [NOW]	1. Users shall be able to view data that is comingled by data type, in time sequence, regardless of the source of the data whether it be within or outside of VHA and DoD [NOW, +] 2. Users shall be able to use both custom and enterprise standard dashboards to address needs for cohorts of patients. [NOW] 3. There shall be an enterprise wide governance process that manages alerts and other CDS formats to maximize their efficiency [VA] 4. CDS tools shall be standards based, and shareable within and outside of DoD and the VA [NOW, +] 6. Organization of CDS artifacts in a knowledge base with metatags indicating context parameters that characterize where they are applicable [1-3] 7. EHR supports multiple CDS approaches including: • internal alerts/reminders, [NOW] • access to external CDS modules via standards based data exchange (HL7 DSS/CDS Hooks, etc), [NOW +] • context specific InfoButton links to document based CDS [NOW]	Final			
VA-NF-T31	Informatics - Clinical Decision Support	VA requires CDS applications that operate as components of a comprehensive EHR system. DLM6 [NOW]	1. Ability to maintain and support an external shared knowledge management repository that can be accessed through EHRs, either by APIs or by import/synchronization with host EHR systems [>3] 2. CDS applications are patient context aware (eg. CCOW or SMART apps) and not requiring multiple signon's [NOW, +]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T32	Informatics - Clinical Decision Support	VA requires CDS interventions that address the CDS Five Rights by providing the right information (evidence-based guidance, response to clinical need), to the right people (entire care team – including the patient), through the right channels (e.g., EHR, mobile device, patient portal), in the right formats (e.g., order sets, flow-sheets, dashboards, patient lists), at the right times (CDS) DLM7 [NOW]	1. There shall be an enterprise wide governance process, incorporating all healthcare specialties, to manage evidence-based guidance that supports clinical decision support tools. [VA] 2. Intensive usability assessment shall be done and acted upon for all CDS interventions, including careful workflow analysis that addresses all 5 rights. [VA] 3. CDS tools and EHR are equally accessible by providers, patients, and caregivers through multiple channels (desktop, mobile device). [NOW +]	Final			
VA-NF-T91	Informatics - Content Integration	VA needs to be able to purchase/acquire and easily deploy standards-based clinical decision support content such as order sets, documentation templates and clinical rules. (Extension, CDS) SHB3 [NOW +]	1. The system can import and execute "USPSTF Statin Use for the Primary Prevention of CVD in Adults" ECA rule from the AHRQ CDS Connect repository [1-3] 2. The system will import and execute 1 other ECA rule from AHRQ [1-3] 3. The system will be able to import and execute one or more order sets and one or more documentation templates from a non-Cerner, standards-based source [1-3]	Final			
VA-NF-T92	Informatics - Content Integration	VA must be able to integrate clinical data, knowledge resources, and workflow across care venues. (CDS, Cognitive Support, Process Continuity, Evolution, Innovation) BG1 [MISSED]	1. The system will be able model work flow e.g., for low back pain evaluation and management using BPMN, CMMN, DMN and track completion of each step regardless of care venue. [>3] 2. The system will be able to marshall relevant clinical data for each step (eg,MRI results, medications) from each care venue and integrate the results into a coherent workflow centric view. [NOW]	Final			
VA-NF-T93	Informatics - Content Integration	VHA requires extension and import of clinical knowledge (code systems, ontologies, etc.) from external sources, allowing it to more accurately and rapidly ingest best-practices as they are come available from clinical professional societies and peer healthcare delivery organizations. (CDS, Cognitive Support, Extension, Innovation) KSR3 [NOW +]	1. The System will be able to import SNOMED CT and use full capabilities of updates in RF2 format from NLM and deploy the updates at the point of care for use in problem lists. [1-3] 2. The system will be able to import LOINC and RxNORM and deploy the updates for use where appropriate e.g. pharmacy, lab. [NOW]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T32	Informatics - Clinical Decision Support	VA requires CDS interventions that address the CDS Five Rights by providing the right information (evidence-based guidance, response to clinical need), to the right people (entire care team – including the patient), through the right channels (e.g., EHR, mobile device, patient portal), in the right formats (e.g., order sets, flow-sheets, dashboards, patient lists), at the right times (CDS) DLM7 [NOW]	1. There shall be an enterprise wide governance process, incorporating all healthcare specialties, to manage evidence-based guidance that supports clinical decision support tools. [VA] 2. Intensive usability assessment shall be done and acted upon for all CDS interventions, including careful workflow analysis that addresses all 5 rights. [VA] 3. CDS tools and EHR are equally accessible by providers, patients, and caregivers through multiple channels (desktop, mobile device). [NOW +]	Final			
VA-NF-T91	Informatics - Content Integration	VA needs to be able to purchase/acquire and easily deploy standards-based clinical decision support content such as order sets, documentation templates and clinical rules. (Extension, CDS) SHB3 [NOW +]	1. The system can import and execute "USPSTF Statin Use for the Primary Prevention of CVD in Adults" ECA rule from the AHRQ CDS Connect repository [1-3] 2. The system will import and execute 1 other ECA rule from AHRQ [1-3] 3. The system will be able to import and execute one or more order sets and one or more documentation templates from a non-Cerner, standards-based source [1-3]	Final			
VA-NF-T92	Informatics - Content Integration	VA must be able to integrate clinical data, knowledge resources, and workflow across care venues. (CDS, Cognitive Support, Process Continuity, Evolution, Innovation) BG1 [MISSED]	1. The system will be able model work flow e.g., for low back pain evaluation and management using BPMN, CMMN, DMN and track completion of each step regardless of care venue. [>3] 2. The system will be able to marshall relevant clinical data for each step (eg,MRI results, medications) from each care venue and integrate the results into a coherent workflow centric view. [NOW]	Final			
VA-NF-T93	Informatics - Content Integration	VHA requires extension and import of clinical knowledge (code systems, ontologies, etc.) from external sources, allowing it to more accurately and rapidly ingest best-practices as they are come available from clinical professional societies and peer healthcare delivery organizations. (CDS, Cognitive Support, Extension, Innovation) KSR3 [NOW +]	1. The System will be able to import SNOMED CT and use full capabilities of updates in RF2 format from NLM and deploy the updates at the point of care for use in problem lists. [1-3] 2. The system will be able to import LOINC and RxNORM and deploy the updates for use where appropriate e.g. pharmacy, lab. [NOW]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T94	Informatics - Content Management	The VA must be able to use CDS, Process Interoperability and Cognitive support mechanisms reliably and consistently over time and across venues of care. The VA must have the ability to monitor and manage all CDS, Process Interoperability and Cognitive Support mechanisms and all dependent subcomponents such as code systems and other data representations (CDS Cognitive Support, Quality, Safety) SHB7 [1-3]	1. The system will provide monitoring of the frequency of CDS rule such as colorectal cancer screening firing over time and will provide alerts when significant changes in patterns are encountered as determined by statistical process control metrics. [NOW] 2. CDS rule components for colorectal cancer screening will be represented using SNOMED CT with STAMP versioning. CDS rules for colorectal cancer screening will be STAMP versioned. [1-3] 3. The system must track dependencies between all CDS artifacts and their components using a coordinated-based declaration of dependencies, where each artifact will be given a textual group id, artifact id, and version. This coordinate-based delegation of dependencies is an industry best-practice as demonstrated by implementations of this paradigm by Maven, Gradle, and other build systems. [1-3]	Final			
VA-NF-T33	Informatics - Content Management	VHA must effectively integrate and manage veteran data from heterogeneous external partners that will include versioned structural representations of data, including but not limited to CIMI Model Instances and patient data constructs represented in these structures. (Data Exchange, Evolution) KSR1 [NOW Healthelintent]	1. System will support the use of multiple data models (e.g., CEM, CIMI, ANF) [NOW] 2. System will support STAMP versioning for all data models and standard terminologies. [NOW] 3. System will be able to import, store and reuse in CDS patient data delivered via multiple versioned data models for the triggering of a colorectal cancer screening reminder [NOW]	Final			
VA-NF-T34	Informatics - Content Management	The VA must continuously evaluate quality, safety, and value using data sets that cover a time period of 5 years or more (5 year survival for cancer patients is an important benchmark). The VA must have the ability to manage changes in code systems and other data representations over the time period, in order to reliably and consistently assess quality, safety, and value. (Quality, Safety, Value, Evolution) KEC4 [NOW +]	1. Code systems and elements will be maintained using STAMP versioning. [NOW] 2. Upon update, the status of previous versions of the code set and code elements will be changed to reflect the update but the previous version and code elements will not be deleted from the system. [NOW]	Final			
VA-NF-T35	Informatics - Content Management	VA must be able to extend existing standards content with new codes in a timely and accurate manner. The VA must also have a process by which these extensions are reconciled with the relevant standards. KEC5 [NOW]	1. The system will support a VA "extension" to SNOMED that meets SNOMED extension technical requirements. [NOW] 2. The system will provide tools for terminology modelers with SNOMED modeling experience to model new pre and post coordinated concepts in a graphical environment [1-3] 3. The system will store those STAMP versioned models in a VA extension. [NOW]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T94	Informatics - Content Management	The VA must be able to use CDS, Process Interoperability and Cognitive support mechanisms reliably and consistently over time and across venues of care. The VA must have the ability to monitor and manage all CDS, Process Interoperability and Cognitive Support mechanisms and all dependent subcomponents such as code systems and other data representations (CDS Cognitive Support, Quality, Safety) SHB7 [1-3]	1. The system will provide monitoring of the frequency of CDS rule such as colorectal cancer screening firing over time and will provide alerts when significant changes in patterns are encountered as determined by statistical process control metrics. [NOW] 2. CDS rule components for colorectal cancer screening will be represented using SNOMED CT with STAMP versioning. CDS rules for colorectal cancer screening will be STAMP versioned. [1-3] 3. The system must track dependencies between all CDS artifacts and their components using a coordinated-based declaration of dependencies, where each artifact will be given a textual group id, artifact id, and version. This coordinate-based delegation of dependencies is an industry best-practice as demonstrated by implementations of this paradigm by Maven, Gradle, and other build systems. [1-3]	Final			
VA-NF-T33	Informatics - Content Management	VHA must effectively integrate and manage veteran data from heterogeneous external partners that will include versioned structural representations of data, including but not limited to CIMI Model Instances and patient data constructs represented in these structures. (Data Exchange, Evolution) KSR1 [NOW Healthelintent]	1. System will support the use of multiple data models (e.g., CEM, CIMI, ANF) [NOW] 2. System will support STAMP versioning for all data models and standard terminologies. [NOW] 3. System will be able to import, store and reuse in CDS patient data delivered via multiple versioned data models for the triggering of a colorectal cancer screening reminder [NOW]	Final			
VA-NF-T34	Informatics - Content Management	The VA must continuously evaluate quality, safety, and value using data sets that cover a time period of 5 years or more (5 year survival for cancer patients is an important benchmark). The VA must have the ability to manage changes in code systems and other data representations over the time period, in order to reliably and consistently assess quality, safety, and value. (Quality, Safety, Value, Evolution) KEC4 [NOW +]	1. Code systems and elements will be maintained using STAMP versioning. [NOW] 2. Upon update, the status of previous versions of the code set and code elements will be changed to reflect the update but the previous version and code elements will not be deleted from the system. [NOW]	Final			
VA-NF-T35	Informatics - Content Management	VA must be able to extend existing standards content with new codes in a timely and accurate manner. The VA must also have a process by which these extensions are reconciled with the relevant standards. KEC5 [NOW]	1. The system will support a VA "extension" to SNOMED that meets SNOMED extension technical requirements. [NOW] 2. The system will provide tools for terminology modelers with SNOMED modeling experience to model new pre and post coordinated concepts in a graphical environment [1-3] 3. The system will store those STAMP versioned models in a VA extension. [NOW]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T36	Informatics - Content Management	The VA must ensure that all uses of clinical data must be demonstrably safe for patient care, through the computation and evaluation of metrics, system analysis, and statistical sampling. The VA must never be faced with a circumstance where patient harm resulted from unsafe processing of clinical data, such as sending data through a defective map that may result in errors of care. (Safety, Data Exchange, CDS, Process Continuity, Cognitive Support) KEC2 [NOW +]	1. When an artifact upon which CDS is dependent changes, (terminology, model, rule, etc), the system must be able to compute which other artifacts are dependent on that artifact, so that proper quality assurance can be performed on the dependent artifacts to ensure patient safety. [1-3] 2. All transformations from internal terminology to external terminology must use an equivalence table, where each entry in the table has clinical equivalent meaning. This equivalence table must be subject to ongoing metric-based quality assurance, where inter-rater and intra-rater reliability statistics are provided. The VA will sample this equivalence table, and will create its own inter-rater and intra-rater reliability statistics to confirm the clinical safety aspects of this equivalence table. Any discrepancies found in the equivalence table will be rapidly remedied in the interest of providing for safe operation upon and exchange of patient data. [1-3] 3. All internal terminology content that does not have a clinically equivalent transformation to an external standard will be part of a backlog tracker, where content in the tracker will be planned for modeling and contribution to an appropriate standard, so that we maintain clinical equivalence in exchange of data with external care partners. [1-3]	Final			
VA-NF-T37	Informatics - Content Management	VHA must be able to create, modify, maintain, publish, monitor and govern clinical content of all types including terminology, ECA rules, order sets, documentation templates, clinical pathways, guidelines, work flows and governance at enterprise scale. All artifacts must be versioned and their interdependencies known and agily managed. To achieve these goals, integrated tooling for knowledge engineering and knowledge management are required. [1-3]	1. The system will include tooling to create, curate, maintain, publish and manage terminology, ECA rules, order sets and documentations templates including STAMP versioning of each content type [1-3] 2. The system will include an integrated tooling suite to create, curate, maintain, publish and manage terminology, ECA rules, order sets and documentations templates [1-3] 3. The system will include an integrated tooling suite with dependency tracking to create, curate, maintain, publish and manage terminology, ECA rules, order sets and documentations templates [1-3] 4. Additional content types will be added to the Knowledge engineering environment [1-3]	Final			

Ref #	Capabilities	Definition	RTM Clarification	VA Status	Met/Not Met	Solution Name	Development
VA-NF-T36	Informatics - Content Management	The VA must ensure that all uses of clinical data must be demonstrably safe for patient care, through the computation and evaluation of metrics, system analysis, and statistical sampling. The VA must never be faced with a circumstance where patient harm resulted from unsafe processing of clinical data, such as sending data through a defective map that may result in errors of care. (Safety, Data Exchange, CDS, Process Continuity, Cognitive Support) KEC2 [NOW +]	1. When an artifact upon which CDS is dependent changes, (terminology, model, rule, etc), the system must be able to compute which other artifacts are dependent on that artifact, so that proper quality assurance can be performed on the dependent artifacts to ensure patient safety. [1-3] 2. All transformations from internal terminology to external terminology must use an equivalence table, where each entry in the table has clinical equivalent meaning. This equivalence table must be subject to ongoing metric-based quality assurance, where inter-rater and intra-rater reliability statistics are provided. The VA will sample this equivalence table, and will create its own inter-rater and intra-rater reliability statistics to confirm the clinical safety aspects of this equivalence table. Any discrepancies found in the equivalence table will be rapidly remedied in the interest of providing for safe operation upon and exchange of patient data. [1-3] 3. All internal terminology content that does not have a clinically equivalent transformation to an external standard will be part of a backlog tracker, where content in the tracker will be planned for modeling and contribution to an appropriate standard, so that we maintain clinical equivalence in exchange of data with external care partners. [1-3]	Final			
VA-NF-T37	Informatics - Content Management	VHA must be able to create, modify, maintain, publish, monitor and govern clinical content of all types including terminology, ECA rules, order sets, documentation templates, clinical pathways, guidelines, work flows and governance at enterprise scale. All artifacts must be versioned and their interdependencies known and agily managed. To achieve these goals, integrated tooling for knowledge engineering and knowledge management are required. [1-3]	1. The system will include tooling to create, curate, maintain, publish and manage terminology, ECA rules, order sets and documentations templates including STAMP versioning of each content type [1-3] 2. The system will include an integrated tooling suite to create, curate, maintain, publish and manage terminology, ECA rules, order sets and documentations templates [1-3] 3. The system will include an integrated tooling suite with dependency tracking to create, curate, maintain, publish and manage terminology, ECA rules, order sets and documentations templates [1-3] 4. Additional content types will be added to the Knowledge engineering environment [1-3]	Final			

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VA-NF-T38	Informatics - Content Management	VHA must be able to "mass customize" ("localization") clinical content to meet local needs without inducing undesirable variation in enterprise assets such as coded clinical observations from the point of care. Controlled mass customization should be achieved by creating tools that separate concerns, respect architectural layers, support versioning and dependency management, and have the ability to classify artifact subcomponents into categories of permitted variation. [NOW]	1. The tool should be able to mass customize an order based on availability and allocation of resources. [NOW] 2. The tool should be able to mass customize an order based on local medication formulary. [NOW] 3. The tool should be able to mass customize a documentation template based on local information requirements such as an ongoing research study [NOW] 4. The tool should be able to mass customize an ECA rule where the prior probability of conditions may vary geographically [NOW] 5. The tool should support additional types and classes of mass customization [NOW +]	Final			
VA-NF-T39	Informatics - Workflow	VHA must be able to develop, extend and bi-directionally share standards-based care protocols and workflows with external care partners in order to improve care quality, care consistency and enhance VHA's ability to come into compliance with best-practices in a more timely and accurate way. Expected industry standards such as BPMN, CMMN, DMN (Process Continuity, Quality, Safety Value) KSR6 [>3]	Demonstrate the ability to ingest care processes expressed in standards such as BPMN, CMMN, and/or DMN either directly imported or indirectly used to create intra-product workflows within the EHR. [>3]	Final			
VA-NF-T40	Informatics - Workflow	VHA requires CDS that is designed using a reference taxonomy of its choosing, such as The Reference Taxonomy of Clinical Workflows or the Clinical Care Ontology that provides a common set of terms to CDS designers and implementers to support communication about CDS and its use in clinical workflows. (CDS) DLM9 [1-3]	1. Reminders, such as the VA colorectal cancer screening reminder, will be linked to VA care processes via the clinical care ontology and into at least one standards-based (eg BPM CMN DMN) modeled workflow such as a primary care scheduled visit. [1-3] 2. These artifacts will be searchable and will be easily shared with clinical subject matter experts. [1-3]	Final			
VA-NF-T41	Informatics - Workflow	VHA requires CDS tools and repositories, to enable workflow-related organization and searches. (CDS) DLM10 [NOW +]	. The system will permit searches for CDS artifacts including ECA rules, order sets and documentation templates for at least one standards-based (eg BPM CMN DMN) modeled workflow such as a primary care scheduled visit. [1-3] 2. The system shall show an updated search result based on the addition of one or more CDS artifacts to the chosen workflow [1-3]	Final			
VA-NF-T42	Informatics - Workflow	VHA requires CDS tools that are tagged with terms from a reference taxonomy of its choosing, such as The Reference Taxonomy of Clinical Workflows or the Clinical Care Ontology, to inform practices about the intended use of CDS. (CDS) [1-3]	1. Reminders, such as the VA colorectal cancer screening reminder, will be linked to VA care processes via the clinical care ontology and into at least one standards-based (eg BPM CMN DMN) modeled workflow such as a primary care scheduled visit. [1-3] 2. These artifacts will be searchable and will be easily shared with clinical subject matter experts. [1-3]	Final			
VA-NF-T43	Informatics - Workflow	VHA requires CDS that is implemented using maps of workflows that have been developed using a reference taxonomy of its choosing, such as The Reference Taxonomy of Clinical Workflows. (CDS) DLM12 [1-3]	1. Reminders, such as the VA colorectal cancer screening reminder, will be linked to VA care processes via the clinical care ontology and into at least one standards-based (eg BPM CMN DMN) modeled workflow such as a primary care scheduled visit. [1-3] 2. These artifacts will be searchable and will be easily shared with clinical subject matter experts. [1-3]	Final			

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VA-NF-T44	Informatics - Quality and Value	VA must be able to support, identify and continuously advance best practices in Veteran's Care including conditions such as PTSD, TBI, MST, and Suicide Prevention (Quality, Safety, Value, Innovation) SHB5 [NOW +]	1. The system will implement versioned standards-modeled workflows linked to standards-based CDS artifacts (documentation templates, ECA rules, order sets) composed of concepts from standard terminologies (e.g. SNOMED) collecting standards encoded data from care processes for one of: PTSD, TBI, Suicide Prevention. [>3] 2. The resulting versioned standards-based patient instance and process data shall be query-able via standard methods such as SQL. [1-3] 3. A updated collection of versioned artifacts addressing the same condition shall be implemented and the earlier versions shall be retired. [NOW]	Final			
VA-NF-T45	Informatics - Quality and Value	VHA must employ enterprise-wide value-based analytics and management to guide investment across the health system. This includes the capability to identify and analyze individual and population health outcomes and to model costs at the individual and system levels utilizing Time-Driven Activity Based Costing. To achieve this, VHA's EHR must be able to manage, collect and re-use enterprise-wide standards-based clinical data. Value-based methods also require VHA to manage and track healthcare activities, including activity resource inputs (e.g., personnel, it systems, materials) and activity delivery time-capture. DM1 [NOW +]	1. The system will be able to collect and display time data for procedures represented by CPT [NOW +] 2. The system will be able to collect and display time data for non-CPT activities [NOW +] 3. The system will be able to model resources required for procedures. [NOW +]	Final			
~~VA-NF-T46~~		~~The system shall support provenance (chain of custody or ownership) and pedigree (processing history how the data was produced or incorporated) and enable identification, collection, and production of data according to source, custody and ownership and display of data in business, logical, legal or physical models.~~		~~Final~~			

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VA-NF-113	[redacted]	The vendor shall provide a solution to archive the complete medical record from VistA (need to identify all of the components from within the VistA product) The archiving solution shall place the legacy data in a relational database The solution shall provide a link/API access from an individual patients Cerner Millennium chart to the patients archived record The archiving solution shall be searchable by account IDs, name, social security number, or data source The archiving solution shall be capable of archiving patient records from the Cerner Millennium system	Record Control Schedule with NARA: For VHA, the electronic health records covered under the Privacy Act SORN, 24VA10P2, are temporary records with a requirement for destruction or deletion 75 years after the last episode of patient care (N1-15-02-3, Item 3). Once the electronic health records reach 3 years of inactivity the record can be archived. · Archived records must meet NARA Requirements and the agency record control schedule. o NARA Definition of Archives: The noncurrent records of an organization or institution preserved because of their continuing value. The Archivist of the US determines the continuing value of records per the record control schedule approval process. · Archived records must have the ability to be recovered and returned to full status in the operational system as needed and upon request (e.g., patient returns to VA for care). o Archived records must reflect the original version and cannot be altered in a manner that prevents reincorporation into the operational system. Data integrity must be maintained. o Archived records must be returned to full status in the operational system in a sufficiently efficient timeframe to meet clinical care needs. (e.g., emergency care after 3 years of inactivity) o Archived records may be handled through tiered storage.	Final			
VA-NF-B04	[redacted]	For COOP/DR: The system shall be able to identify what images exist, and which of those are in the cache, when a medical center is disconnected from Cerner Data Center.	7/24 or other local solution must contain a database pointer table that can re-direct to local cache instead of CAMM and allow access to locally-stored images. It will also indicate whether or not an image has been taken if the image is not stored locally (metadata only).	Final			

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	508 Compliance									
VA-NF-222	508 Compliance	The system shall be 100% compliant with the 2017 revisions for INFORMATION AND COMMUNICATION TECHNOLOGY PROCUREMENTS (SECTION 508), Section 508 of the Rehabilitation Act of 1998, as amended, 29 USC 794(d) and the requirements outlined in the Performance Work Statement. The contractor shall ensure employees with disabilities are offered the same training opportunities via equivalent access and that the training environment is accessible to those with disabilities and the electronic training materials meet section 508 requirements. When documentation is only provided in non-electronic formats, alternate formats usable by people with disabilities shall be provided by material originator upon request.	The Section 508 standards established by the Architectural and Transportation Barriers Compliance Board (Access Board) are incorporated into, and made part of all VA orders, solicitations and purchase orders developed to procure Information and Communication Technology (ICT). These standards are found in their entirety at: http://www.section508.gov and https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/text-of-the-standards-and-guidelines. A printed copy of the standards will be supplied upon request.	Final	36706	Usability	DEA.040201 Human Interface (767938)	Ellen Crowe		
	Access Management									
VA-NF-6	Access Management	The system shall conform to both DoD and VA standardized access management methods	Access Methods implementation will be different for VA. Cerner will need to integrate to VA's Enterprise IAM services (SSOi, Provisioning, etc..)	Final	36656	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-7	Data Access	The system shall support the ability to access data elements using open standard-based interfaces including legacy data	With the data migration plan and VA adding HealtheIntent to its scope we believe longitudinal patient data interfaces will need to be available and secured using PKI bi-mutual Authentication of a trusted system or a SAML non-person entity token.	Final	10	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-8	Information Access	The system shall initially provide role-based access and allow for finer grained access in the future	Attribute based access on people, places, context, environmental to view specific patient record elements and take action on certain functions in the application	Final	36670	Security	EHRM Lead	Cindy Bias		
VA-NF-9	PKI Infrastructure	The system shall use VA-approved public key infrastructure (PKI) certificates in PKI-based identity authentication processes for component business and mission processes	VA uses a different PKI infrastructure than DoD. Cerner will need to support both	Final	36686	Security	EHRM Lead	Cindy Bias		
VA-NF-10	User Configuration	The system shall enable role configuration to fit VA business needs	Role management and configuration needs to be robust enough to fit VA's unique business needs for providing right access to the right person in the field.	Final	36698	Security	EHRM Lead	Cindy Bias		
VA-NF-11	User Login - PIV	The system shall provide the ability of the user to log in to the system via a VA PIV card and/or use the VA's Authentication service and trusted token	Direct PIV auth will require integration to OCSP responders and binding to attribute on certificate; if VA's Authentication service will provide a SAML token and binding will occur on token attributes	Final	36699	Security	EHRM Lead	Cindy Bias		
VA-NF-38	User Provisioning	The system shall be able to provision and de-provision users into Cerner Active Directory and Applications both manually and automated with VA's Enterprise provisioning service.	Integration to VA's IAM Provisioning service using SPML and having a fallback manual provisioning process to add users to the right applications with the right roles/permissions	Final	38497	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-43	Single Sign-On	The system shall allow users access to multiple applications using a single means of authentication maintaining User context across all Cerner applications (e.g., valid DoD CAC/ VA PIV combined with personal identification number	This is an SSO requirement, not forcing users to input PIN at every application. Using the VA's authentication Service token should allow for this. Maintaining User Context with related patient context is huge.	Final	45884	Usability	EHRM Lead	Cindy Bias		

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VA-NF-45	Identity - Joint Legacy Viewer	The system shall integrate Joint Legacy Viewer connectivity (e.g., launch button) with the EHR solution, to include context management using the user ID, patient ID, and patient encounter	VA users and not all patients will have EDIPI.	Final	170452	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-47	Self Service Credentials	Self Service applications shall allow for federated credentials to be used to access the system	VA uses several different credentials (ID.me, DS-Logon, USAA, VA CSP) to allow Veterans to access using the credential they have	Final		Usability	EHRM Lead	Cindy Bias		
VA-NF-48	Self Service Authentication	Self Service applications shall allow for authentication from VA authentication service	VA IAM offers SSOe to proxy users or can provide a SSO STS token. The VA also has authentication service provided behind VETS.gov that could be used.	Final		Compatibility	EHRM Lead	Cindy Bias		
VA-NF-49	Patient Context	Maintain patient context throughout all Cerner applications and SSO sessions	Patient context management service between all Cerner apps; needs to work in conjunction with SSO user context	Final		Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-50	User Logon - TAP	After initial 2 factor authentication, a user shall be allowed to use TAP to resume session	From Cerner: Need clarification and additional use cases from VA due to the large technical gap with 2 factor authentication with existing Cerner TAP capabilities.	Final		Security	EHRM Lead	Cindy Bias		
VA-NF-51	Emergency Access Non-Two Factor Authentication	The system shall support a temporary non-two factor authentication for emergency situations	This might be solved with an SSOi integration that would support AD auth and pass authentication token	Final		Security	EHRM Lead	Cindy Bias		
~~VA-NF-55~~		~~The system shall allow for an automated way to provision and deprovision users into the Cerner Active Directory and all Cerner Application~~		~~Final~~		Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-56	Account Disable	The System shall provide the ability to disable user accounts after a configurable time period of inactivity and manually at any point to prevent	The time period would run as a batch job. Manual would allow administrators to put a user hold to prevent access at any time 24/7	Final		Security	EHRM Lead	Cindy Bias		
VA-NF-58	Security Audit	The system shall audit all access control functions (i.e. authentication, authorization events, log on attempts, etc..)	This should be covered by NIST 800-53 controls	Final		Security	EHRM Lead	Cindy Bias		
VA-NF-39	Web Application Identity Management And access management	The web applications for the system shall implement identity management and access management	Web applications shall be implemented with enterprise identity and access services the same as the thick client/Citrix XenApp applications.	Final	38498	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-46	Self Service Applications	The self-service/patient portals shall implement identity management and access management	All IAM requirements apply to self service apps. User Credentials, authentication will be	Final		Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-S03	Re-Authentication	The system shall be able to re-authenticate a user based on business needs (I.E. – electronic signature of basic orders or other types of system transactions.	This is for revetting the user and capturing their electronic acknowledgement of a transaction. (non-level 2 controlled substances that require digital signature) Business may choose to allow e-signature acknowledgement in lieu of this requirement. SSOi has a re-authentication call back in its integration patterns.	Final		Functional Suitability	EHRM Lead	Cindy Bias		
	Data Management									

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VA-NF-45	Identity - Joint Legacy Viewer	The system shall integrate Joint Legacy Viewer connectivity (e.g., launch button) with the EHR solution, to include context management using the user ID, patient ID, and patient encounter	VA users and not all patients will have EDIPI.	Final	170452	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-47	Self Service Credentials	Self Service applications shall allow for federated credentials to be used to access the system	VA uses several different credentials (ID.me, DS-Logon, USAA, VA CSP) to allow Veterans to access using the credential they have	Final		Usability	EHRM Lead	Cindy Bias		
VA-NF-48	Self Service Authentication	Self Service applications shall allow for authentication from VA authentication service	VA IAM offers SSOe to proxy users or can provide a SSO STS token. The VA also has authentication service provided behind VETS.gov that could be used.	Final		Compatibility	EHRM Lead	Cindy Bias		
VA-NF-49	Patient Context	Maintain patient context throughout all Cerner applications and SSO sessions	Patient context management service between all Cerner apps; needs to work in conjunction with SSO user context	Final		Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-50	User Logon - TAP	After initial 2 factor authentication, a user shall be allowed to use TAP to resume session	From Cerner: Need clarification and additional use cases from VA due to the large technical gap with 2 factor authentication with existing Cerner TAP capabilities.	Final		Security	EHRM Lead	Cindy Bias		
VA-NF-51	Emergency Access Non-Two Factor Authentication	The system shall support a temporary non-two factor authentication for emergency situations	This might be solved with an SSOi integration that would support AD auth and pass authentication token	Final		Security	EHRM Lead	Cindy Bias		
~~VA-NF-55~~		~~The system shall allow for an automated way to provision and deprovision users into the Cerner Active Directory and all Cerner Application~~		~~Final~~		Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-56	Account Disable	The System shall provide the ability to disable user accounts after a configurable time period of inactivity and manually at any point to prevent	The time period would run as a batch job. Manual would allow administrators to put a user hold to prevent access at any time 24/7	Final		Security	EHRM Lead	Cindy Bias		
VA-NF-58	Security Audit	The system shall audit all access control functions (i.e. authentication, authorization events, log on attempts, etc..)	This should be covered by NIST 800-53 controls	Final		Security	EHRM Lead	Cindy Bias		
VA-NF-39	Web Application Identity Management And access management	The web applications for the system shall implement identity management and access management	Web applications shall be implemented with enterprise identity and access services the same as the thick client/Citrix XenApp applications.	Final	38498	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-46	Self Service Applications	The self-service/patient portals shall implement identity management and access management	All IAM requirements apply to self service apps. User Credentials, authentication will be	Final		Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-S03	Re-Authentication	The system shall be able to re-authenticate a user based on business needs (I.E. – electronic signature of basic orders or other types of system transactions.	This is for revetting the user and capturing their electronic acknowledgement of a transaction. (non-level 2 controlled substances that require digital signature) Business may choose to allow e-signature acknowledgement in lieu of this requirement. SSOi has a re-authentication call back in its integration patterns.	Final		Functional Suitability	EHRM Lead	Cindy Bias		
	Data Management									

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~~VA-NF-113~~		~~The vendor shall provide a solution to archive the complete medical record from VistA (need to identify all of the components from within the VistA product) The archiving solution shall place the legacy data in a relational database The solution shall provide a link/API access from an individual patients Cerner Millennium chart to the patients archived record The archiving solution shall be searchable by account IDs, name, social security number, or data source The archiving solution shall be capable of archiving patient records from the Cerner Millennium system~~	~~Record Control Schedule with NARA:~~ ~~For VHA, the electronic health records covered under the Privacy Act SORN, 24VA10P2, are temporary records with a requirement for destruction or deletion 75 years after the last episode of patient care (N1-15-02-3, Item 3).~~ ~~Once the electronic health records reach 3 years of inactivity the record can be archived.~~ ~~• Archived records must meet NARA Requirements and the agency record control schedule.~~ ~~o NARA Definition of Archives: The noncurrent records of an organization or institution preserved because of their continuing value. The Archivist of the US determines the continuing value of records per the record control schedule approval process.~~ ~~• Archived records must have the ability to be recovered and returned to full status in the operational system as needed and upon request (e.g., patient returns to VA for care).~~ ~~o Archived records must reflect the original version and cannot be altered in a manner that prevents reincorporation into the operational system. Data integrity must be maintained.~~ ~~o Archived records must be returned to full status in the operational system in a sufficiently efficient timeframe to meet clinical care needs. (e.g., emergency care after 3 years of inactivity)~~ ~~o Archived records may be handled through~~	~~Final~~		Security	FFRDC - MITRE	Jack Bates		
VA-NF-134	Data Write Back to Legacy Systems	The system shall support integration with a data syndication mechanism to write back data to VA Legacy systems	Changed language from "shall provide" to "shall support integration with". The current strategy is to utilize VA COTS InterSystems HealthShare as the mechanism for write back.	Final		Functional Suitability	Contractor - BAH	Jack Bates		
VA-NF-137	Tape Backup and Long Term Storage	The system shall support capability for encrypted back up to tape and long term storage, per VA mandate.		Final		Functional Suitability	Contractor - BAH	Jack Bates		
VA-NF-175	VA Data Model	The system shall conform to the VA EA Enterprise Logical Data Model (ELDM)		Final		Functional Suitability	DEA.04.01.01 Enterprise Data (767919)	Jack Bates		
	Identity Management									
VA-NF-5	Identity Management	The system shall use VA standardized identity management framework	Interfacing will include DoD DMDC PDWS (DEERS) and VA MVI services	Final	36655	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-13	Patient Identity - Identifier	The system shall use the DoD Identifier as the uniform person identifier with the VA ICN as an association	Modified to add ICN as associated ID	Final	38432	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-15	Patient Identity - Synchronization	The system shall be able to synchronize all patient identities to the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI	Final	38434	Security	EHRM Lead	Cindy Bias		
VA-NF-17	Patient Identity - Patient Identifier	The system shall be able to retrieve patient identity information (i.e. name, DOB, gender) from the enterprise Identity Management System (i.e., DEERS, MVI) using the DoD Identifier (aka EDI_PI) or ICN	Added i.e. as there other traits besides name, DOB, gender that will be required for retrieval, added MVI, added ICN	Final	38436	Functional Suitability	EHRM Lead	Cindy Bias		

Ref #	Capabilities	Definition	RTM Clarification	VA Status	DoD Ref (If Applicable)	Type / Category (ISO/IEC 25010:2011)	Source	VA Owner	Met/Not Met *(Cerner Field)*	Solution Name *(Cerner Field)*
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VA-NF-134	Data Write Back to Legacy Systems	The system shall support integration with a data syndication mechanism to write back data to VA Legacy systems	Changed language from "shall provide" to "shall support integration with". The current strategy is to utilize VA COTS InterSystems HealthShare as the mechanism for write back.	Final		Functional Suitability	Contractor - BAH	Jack Bates		
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	Identity Management									
VA-NF-5	Identity Management	The system shall use VA standardized identity management framework	Interfacing will include DoD DMDC PDWS (DEERS) and VA MVI services	Final	36655	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-13	Patient Identity - Identifier	The system shall use the DoD Identifier as the uniform person identifier with the VA ICN as an association	Modified to add ICN as associated ID	Final	38432	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-15	Patient Identity - Synchronization	The system shall be able to synchronize all patient identities to the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI	Final	38434	Security	EHRM Lead	Cindy Bias		
VA-NF-17	Patient Identity - Patient Identifier	The system shall be able to retrieve patient identity information (i.e. name, DOB, gender) from the enterprise Identity Management System (i.e., DEERS, MVI) using the DoD Identifier (aka EDI_PI) or ICN	Added i.e. as there other traits besides name, DOB, gender that will be required for retrieval, added MVI, added ICN	Final	38436	Functional Suitability	EHRM Lead	Cindy Bias		

Ref #	Capabilities	Definition	RTM Clarification	VA Status	DoD Ref (If Applicable)	Type / Category (ISO/IEC 25010:2011)	Source	VA Owner	Met/Not Met *(Cerner Field)*	Solution Name *(Cerner Field)*
VA-NF-18	Patient Identity - Person Identifier	The system shall be able to retrieve patient identity information (i.e. name, DOB, gender) from the enterprise Identity Management System (i.e., DEERS, MVI) using alternate identity traits or alternate person identifiers (e.g., SSN, TIN, FIN, ICN, SecID, DFN, etc.)	Added i.e. as there other traits besides name, DOB, gender that will be required for retrieval, added MVI, added ICN, removed DOB, modified to say "alternate identifiers" and updated the examples to include DFN.	Final	38437	Functional Suitability	EHRM Lead	Cindy Bias		
~~VA-NF-19~~	~~Patient Identity - Additional Traits~~	~~The system shall be able to display returned additional candidate traits to assist the operator in selecting the correct patient from the list of search candidates~~		Removed	38439	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-20	Patient Identity - Primary Search	The system shall conduct the primary patient search against the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI, VA and DoD will provide a joint search mechanism - see 36655	Final	38441	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-21	Patient Identity - Card Scan	The system shall be able to obtain the DoD or VA Identifier by scanning the patient's DoD or VA Identification Cards (barcode)	Added VA	Final	38442	Functional Suitability	EHRM Lead	Cindy Bias		
~~VA-NF-22~~	~~Patient Identity - Trait Update~~	~~The system shall be able to enforce an identity trait update authorization code~~		Removed	38444	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-23	Patient Identity - Trait Retrieve	The system shall retrieve identity traits from the enterprise Identity Management System (i.e., DEERS, MVI) prior to updating patient traits	Added MVI	Final	38445	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-24	Patient Identity - Patient Search	When communications allow, the system shall enforce a search to the enterprise Identity Management System (i.e., DEERS, MVI) prior to adding a new patient	Added MVI	Final	38446	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-25	Patient Identity - Add Patient	The system shall be able to add a patient to the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI	Final	38447	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-27	Patient Identity - Maintenance Notifications	The system shall consume identity maintenance notifications from the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI	Final	38451	Functional Suitability	EHRM Lead	Cindy Bias		
~~VA-NF-28~~	~~Patient Identity - Identity Updates~~	~~The system shall apply identity updates from the identity maintenance notifications~~		Removed	38452	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-29	Patient Identity - DoD Identifier	When the enterprise Identity Management System (i.e., DEERS, MVI) is not available, the system shall add patients using the DoD or VA Identifier, if it is available from a reliable source (e.g., from an ID card)	Added MVI, Added VA	Final	38453	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-30	Patient Identity - Interim Identifier	When the enterprise Identity Management System (i.e., DEERS, MVI) is not available and no reliable source for the DoD or VA Identifier is offered, the system shall use an enterprise-unique Interim Patient Identifier	Added MVI, Added VA	Final	38454	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-31	Patient Identity - Added Synchronization No Comm	The system shall synchronize all Interim Patient Identifiers added during a loss of connectivity once connectivity to the enterprise Identity Management System (i.e., DEERS, MVI) is	Modified to correlate with DoD DOORS# 38454 language, added MVI	Final	38455	Reliability	EHRM Lead	Cindy Bias		
VA-NF-32	Patient Information - Retrieve	The system shall be able to retrieve patient contact information (e.g., addresses, phone numbers, email) from the VA enterprise system using the VA or DoD Identifier	VA has a different enterprise system other than identity that manages patient contact information. Modified to include VA	Final	38458	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-33	Patient Registry Info - Retrieve	The system shall be able to retrieve patient registry information (e.g., preferred language, religion, next of kin) from the VA enterprise System using the VA or DoD Identifier	VA has a different enterprise system other than identity that manages patient registry information. Modified to include VA	Final	38462	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-34	Patient Eligibility - Retrieve	The system shall be able to retrieve patient eligibility information (e.g., Dates of Coverage, allowed coverage - direct care, dental, network, pharm and current beneficiary status) from the VA enterprise System using the VA or DoD	VA has a different enterprise system other than identity that manages patient eligibility information. removed DoD specific examples, Added VA or DoD Identifier	Final	38466	Compatibility	EHRM Lead	Cindy Bias		

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~~VA-NF-19~~	~~Patient Identity - Additional Traits~~	~~The system shall be able to display returned additional candidate traits to assist the operator in selecting the correct patient from the list of search candidates~~		Removed	38439	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-20	Patient Identity - Primary Search	The system shall conduct the primary patient search against the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI, VA and DoD will provide a joint search mechanism - see 36655	Final	38441	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-21	Patient Identity - Card Scan	The system shall be able to obtain the DoD or VA Identifier by scanning the patient's DoD or VA Identification Cards (barcode)	Added VA	Final	38442	Functional Suitability	EHRM Lead	Cindy Bias		
~~VA-NF-22~~	~~Patient Identity - Trait Update~~	~~The system shall be able to enforce an identity trait update authorization code~~		Removed	38444	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-23	Patient Identity - Trait Retrieve	The system shall retrieve identity traits from the enterprise Identity Management System (i.e., DEERS, MVI) prior to updating patient traits	Added MVI	Final	38445	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-24	Patient Identity - Patient Search	When communications allow, the system shall enforce a search to the enterprise Identity Management System (i.e., DEERS, MVI) prior to adding a new patient	Added MVI	Final	38446	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-25	Patient Identity - Add Patient	The system shall be able to add a patient to the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI	Final	38447	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-27	Patient Identity - Maintenance Notifications	The system shall consume identity maintenance notifications from the enterprise Identity Management System (i.e., DEERS, MVI)	Added MVI	Final	38451	Functional Suitability	EHRM Lead	Cindy Bias		
~~VA-NF-28~~	~~Patient Identity - Identity Updates~~	~~The system shall apply identity updates from the identity maintenance notifications~~		Removed	38452	Functional Suitability	EHRM Lead	Cindy Bias		
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VA-NF-30	Patient Identity - Interim Identifier	When the enterprise Identity Management System (i.e., DEERS, MVI) is not available and no reliable source for the DoD or VA Identifier is offered, the system shall use an enterprise-unique Interim Patient Identifier	Added MVI, Added VA	Final	38454	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-31	Patient Identity - Added Synchronization No Comm	The system shall synchronize all Interim Patient Identifiers added during a loss of connectivity once connectivity to the enterprise Identity Management System (i.e., DEERS, MVI) is	Modified to correlate with DoD DOORS# 38454 language, added MVI	Final	38455	Reliability	EHRM Lead	Cindy Bias		
VA-NF-32	Patient Information - Retrieve	The system shall be able to retrieve patient contact information (e.g., addresses, phone numbers, email) from the VA enterprise system using the VA or DoD Identifier	VA has a different enterprise system other than identity that manages patient contact information. Modified to include VA	Final	38458	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-33	Patient Registry Info - Retrieve	The system shall be able to retrieve patient registry information (e.g., preferred language, religion, next of kin) from the VA enterprise System using the VA or DoD Identifier	VA has a different enterprise system other than identity that manages patient registry information. Modified to include VA	Final	38462	Compatibility	EHRM Lead	Cindy Bias		
VA-NF-34	Patient Eligibility - Retrieve	The system shall be able to retrieve patient eligibility information (e.g., Dates of Coverage, allowed coverage - direct care, dental, network, pharm and current beneficiary status) from the VA enterprise System using the VA or DoD	VA has a different enterprise system other than identity that manages patient eligibility information. removed DoD specific examples, Added VA or DoD Identifier	Final	38466	Compatibility	EHRM Lead	Cindy Bias		

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VA-NF-35	Patient OHI - Retrieve	The system shall be able to retrieve patient commercial health insurance information from the VA enterprise system using the VA or DoD	VA has a different enterprise system other than identity that manages patient eligibility information. Added VA or DoD Identifier	Final	38468	Compatibility	EHRM Lead	Cindy Bias		
~~VA-NF-40~~	~~Patient Identity - VA Card Scan~~	~~The system shall be able to obtain the DoD Identifier and VA's ICN by scanning the patient's VA Identification Cards (barcode)~~	Duplicate of VA-NF-40 Card scan needs to pull both identifiers	Removed	40517	Functional Suitability	EHRM Lead	Cindy Bias		
~~VA-NF-41~~	~~Patient Identity - Manual Entry~~	~~The system shall be able to accept the DoD dentifier and/or other key identity traits by manual~~	VA will require searches based on a wider variety of identity traits to be entered manually.	Removed	40518	Functional Suitability	EHRM Lead	Cindy Bias		
VA-NF-42	Patient Identity - Updated Synchronization No Comm	The system shall synchronize all identities updated during a loss of connectivity once connectivity to the enterprise Identity Management System (i.e., DEERS; MVI) is	Need to include MVI synchronization in downtimes	Final	40519	Reliability	EHRM Lead	Cindy Bias		
VA-NF-52	External Patient Identifier Management for exchanges	The system shall support the matching of External Patient IDs coming in through eHealth Exchange/CommonWell and other community partner systems.	This needs to support data coming in from the community (non-VA and DoD systems) and match to existing records in HealtheIntent	Final		Compatibility	EHRM Lead	Cindy Bias		
VA-NF-T77	Referral UID	All information exchange related to a referral will maintain the unique referral identifier.	Sent over from Functional Requirements team for incorporation into Non-Functional RTM.	Final		Functional Suitability	Functional	Cindy Bias		
	Information Assurance / Security									
VA-NF-165	Hardware-accelerated Encryption	The system shall enable the use of hardware-accelerated encryption	Recommend remove from RTM, addressed in RHO scope document. Need Pargraph Reference prior to removal. Rene'---> Not until RHO doc final…	Final	40497 36659 38504 36658	Security	VA Enterprise Design Patterns: Interoperability and Data Sharing, Data Storage v1.0	Casey Johle		
VA-NF-167	Encryption at Scale	The system shall enable the use of key management technologies to facilitate encryption at scale	Recommend remove from RTM, addressed in RHO scope document. Still outstanding – Critical facilities section has comment for Cerner to address EKMS Rene'---> Not until RHO doc final…	Final		Functional Suitability	VA Enterprise Design Patterns: Interoperability and Data Sharing, Data Storage v1.0	Casey Johle		
~~VA-NF-T112~~	~~Data Encryption~~	~~The system shall support the encryption of Controlled Unclassified Information (CUI) Data at Rest for all system data~~	All data stored by the system is encrypted using approved VA encryption methods	Removed	38504	Security		Casey Johle		
VA-NF-170	Data Access Layer	The system shall have application logic access and data managed via a data access layer or established data services instead of directly accessing the database		Final		Security	DEA.04.02.03 Data Handling (767864)	Casey Johle		
VA-NF-171	Application Logic	The system shall have application logic that does not need database implementation details (e.g., data base URLs, internal file formats, schema information)		Final		Security	DEA.04.02.03 Data Handling (767864)	Casey Johle		
VA-NF-189	Systems Monitoring and Alerts - Common Services	The system shall implement common services for logging, error handling, monitoring/alerting.	Recommend removal from RTM, addressed in PWS 7.1.4. Rene'---> No, not 7.1.4, need correct reference to adjudicate	Final	36665-ID 40514-Track	Functional Suitability	Contractor - BAH	Casey Johle		

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VA-NF-42	Patient Identity - Updated Synchronization No Comm	The system shall synchronize all identities updated during a loss of connectivity once connectivity to the enterprise Identity Management System (i.e., DEERS; MVI) is	Need to include MVI synchronization in downtimes	Final	40519	Reliability	EHRM Lead	Cindy Bias		
VA-NF-52	External Patient Identifier Management for exchanges	The system shall support the matching of External Patient IDs coming in through eHealth Exchange/CommonWell and other community partner systems.	This needs to support data coming in from the community (non-VA and DoD systems) and match to existing records in HealtheIntent	Final		Compatibility	EHRM Lead	Cindy Bias		
VA-NF-T77	Referral UID	All information exchange related to a referral will maintain the unique referral identifier.	Sent over from Functional Requirements team for incorporation into Non-Functional RTM.	Final		Functional Suitability	Functional	Cindy Bias		
	Information Assurance / Security									
VA-NF-165	Hardware-accelerated Encryption	The system shall enable the use of hardware-accelerated encryption	Recommend remove from RTM, addressed in RHO scope document. Need Pargraph Reference prior to removal. Rene'---> Not until RHO doc final…	Final	40497 36659 38504 36658	Security	VA Enterprise Design Patterns: Interoperability and Data Sharing, Data Storage v1.0	Casey Johle		
VA-NF-167	Encryption at Scale	The system shall enable the use of key management technologies to facilitate encryption at scale	Recommend remove from RTM, addressed in RHO scope document. Still outstanding – Critical facilities section has comment for Cerner to address EKMS Rene'---> Not until RHO doc final…	Final		Functional Suitability	VA Enterprise Design Patterns: Interoperability and Data Sharing, Data Storage v1.0	Casey Johle		
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VA-NF-171	Application Logic	The system shall have application logic that does not need database implementation details (e.g., data base URLs, internal file formats, schema information)		Final		Security	DEA.04.02.03 Data Handling (767864)	Casey Johle		
VA-NF-189	Systems Monitoring and Alerts - Common Services	The system shall implement common services for logging, error handling, monitoring/alerting.	Recommend removal from RTM, addressed in PWS 7.1.4. Rene'---> No, not 7.1.4, need correct reference to adjudicate	Final	36665-ID 40514-Track	Functional Suitability	Contractor - BAH	Casey Johle		

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VA-NF-T105	Systems Monitoring and Alerts - Capacity Planning	The system shall provide performance monitoring data suitable for capacity planning and projections at a configurable interval with no more than a 12 hour delay from real time.	The environment shall be validated to support the performance monitoring requirements via live production monitoring. Recommend remove from RTM, addressed in RHO scope document Rene'---> Not until RHO doc final… Need paragraph reference	Final		Performance Efficiency	Capacity Performance Engineering Division/EPMO	Kelly, Ed		
~~VA-NF-T106~~	~~Systems Monitoring and Alerts – Compliance Evaluation~~	~~The system shall provide monitoring data suitable for evaulating compliance with any defined performance requirements.~~	The environment shall be validated to support the performance monitoring requirements via live production monitoring. Recommend remove from RTM, addressed in RHO scope document Covered in Proposed Response Time Commitment and Remedy Page 47	Removed		Performance Efficiency	Capacity Performance Engineering Division/EPMO	Kelly, Ed		
~~VA-NF-207~~	~~FIPS 140-2 Data Encryption~~	~~Solution shall support FIPS 140-2 encryption for data at rest and data in transit~~	Recommend remove from RTM, addressed in RHO scope document Covered in b.6 security (Data in Transit) and Critical Facilities (Data at Rest)	Removed	36658, 36659, 38504, 40497	Security	VA Enterprise Design Patterns: Interoperability and Data Sharing, Data Storage v1.0	Casey Johle		
~~VA-NF-208~~	~~In-memory Data Security~~	~~Solution shall observe operating system security for data stored in-memory~~	Recommend remove from RTM, is validated by SCQC and should be handled in PWS 5.4 rather than here and referenced in PWS 5.4 Rene'---> agree remove	Removed	36671	Security	VA Enterprise Design Patterns: Interoperability and Data Sharing, Data Storage v1.0	Casey Johle		
~~VA-NF-214~~	~~IP Addresses~~	~~Application code shall be free of hard-coded IP addresses~~		Removed	36683	Functional Suitability	DEA.04.04.07 Infrastructure Standards (767850)	Casey Johle		
~~VA-NF-T01~~	~~Access Control~~	~~The system shall lock after a specified period of inactivity regardless of how the system is accessed in accordance with VA Cybersecurity controls.~~	Recommend remove from RTM, addressed in RHO scope document Rene'---> agree remove, actually in PWS 5.4	Removed	36448	Security	EHRM Lead	Casey Johle		
VA-NF-T02	Approved Software (SW) List	The system shall be compliant with VA approved software	This requirement applies to any software that is installed on a VA network, and would exclude software hosted on a Cerner network and hosted via Citrix Access Gateway (which is VA approved software). Please Reference: One-VA Technical Reference Model (TRM) http://trm.oit.va.gov/#	Final	2	Security	EHRM Lead	Casey Johle		
VA-NF-T03	Data Encryption - Mobile Device	The system shall employ full-device encryption or container encryption to protect the confidentiality and integrity of information on mobile devices.	VA Handbook 6500 https://www.va.gov/vapubs/viewPublication.asp?Pub_ID=793&FType=2	Final	40497	Security	EHRM Lead	Casey Johle		

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VA-NF-T05	Technical Event Management - Identify	The system shall, at a minimum, generate audit records for the following events when technically possible: Actions of system administrators and operator; production of printed output; new objects and deletion of objects in user address space; security-relevant events; system configuration activities and events; events relating to use of privileges; all events relating to user identification and authentication; and the setting	VA Handbook 6500 https://www.va.gov/vapubs/viewPublication.asp?Pub_ID=793&FType=2	Final	36665	Security	EHRM Lead	Casey Johle		
VA-NF-T06	Hosting	The system shall comply with the requirements for a "Cloud First" policy as established by the Federal CIO. The CIO has required Agencies to evaluate the feasibility of a cloud service prior to hardware and software acquisition.	VA Directive 6517 https://www.va.gov/vapubs/viewPublication.asp?Pub_ID=852&FType=2 Cerner: Recommend remove from RTM, Cloud services requirements are not in scope and removed from PWS. Cerner is not providing a cloud. Rene'---> No can do…it is an OMB policy at the Executive Branch level… I suggest we include but we waive the requirement at the CIO level due to D&F/DOD national security best interest type verbiage…	Final	21	Security	EHRM Lead	Casey Johle		
~~VA-NF-T08~~	~~Cybersecurity~~	~~The system shall meet the NIST high baseline impact level in order to obtain at ATO (VA Risk Management Framework).~~	VA Handbook 6500 https://www.va.gov/vapubs/viewPublication.asp?Pub_ID=793&FType=2	Removed	36671	Security	EHRM Lead	Casey Johle		
VA-NF-T12	Wireless LAN Communication	The system shall support wireless local-area network communication in accordance with VA wireless policy	VA Handbook 6500 https://www.va.gov/vapubs/viewPublication.asp?Pub_ID=793&FType=2 Recommend remove from RTM as this is not a provided service.	Final	36702	Security	EHRM Lead	Casey Johle		
	Interoperability									
VA-NF-142	Interoperability - SOAP Implementation	SOAP-based service implementations shall follow WS Interoperability Basic Profile, and WS Interoperability Basic Security Profile standards		Final		Compatibility	DEA.04.03.02 Messaging Standards (767863)	KC Mahesh		
VA-NF-143	Interoperability - XML Schema	XML messages shall conform to an XML definition written in accordance with XML Schema v1.0, XML Schema v1.1, Schematron or the latest DISR accepted version		Final		Compatibility	DEA.04.03.02 Messaging Standards (767863)	KC Mahesh		
VA-NF-144	Interoperability - ReST Message Conformance	ReST messages shall conform to W3C guidance		Final		Compatibility	DEA.04.03.02 Messaging Standards (767863)	KC Mahesh		
VA-NF-177	Interoperability - Data Standards	The system shall support the use of the health data standards identified in the VA DoD Health Information Technical Standards Profile and by the VA DoD Interagency Clinical Informatics board, including following common data standards: National Information Exchange Model NIEM; Health Level 7 HL7; Logical Observation Identifiers, Names and Codes LOINC; Systematized Nomenclature of Medicine SNOMED; RxNorm, MedRT, ICD, CPT, HCPCS, Veteran Information Model VIM; and Healthcare Information Technology Standards Panel HITSP as well as VA/DOD/IPO extensions to these	Cerner follows all of the common data standards with exception of the HITSP and Veteran Information Model, need clarification.	Final	38546 38551 36707	Compatibility	DEA.04.01.01 Enterprise Data (767919)	KC Mahesh		

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VA-NF-T51	Health Information Exchange	System must be capable of generating the following cCDA document types Care Plan including Home Health Plan of Care (HHPoC), Consultation Note, Continuity of Care Document (CCD), Diagnostic Imaging Reports (DIR), Discharge Summary, History and Physical (H&P), Operative Note, Procedure Note, Progress Note, Referral Note, Transfer Summary, Unstructured Document, Patient Generated Document (US	C-CDA Release 2 implementation guide, in conjunction with the HL7 CDA Release 2 (CDA R2) standard, is to be used for implementing the stated CDA documents and header constraints for clinical notes.	Final	38546	Functional Suitability	EHRM Lead	KC Mahesh		
VA-NF-T52	Health Information Exchange	The system must be capable of bidirectional data exchange with eHealth Exchange, CareQuality		Final	38554	Compatibility	EHRM Lead	KC Mahesh		
	Pharmacy									
VA-NF-T53	Pharmacy - Multiple DEA Numbers	The system shall provide the capability to enter, display, edit, and report multiple DEA numbers per prescriber		Final		Functional Suitability	EHRM Lead	Donna Ellis		
VA-NF-T54	Pharmacy - Institutional DEA Numbers	The system shall provide the capability to enter, display, edit, and report institutional DEA		Final		Functional Suitability	EHRM Lead	Donna Ellis		
VA-NF-T55	Pharmacy - DEA assignment based on location	The system shall provide logic to assign the correct DEA number to a prescription based upon prescriber location.		Final		Functional Suitability	EHRM Lead	Donna Ellis		
VA-NF-T56	Pharmacy - PDMP state mandated transmissions	The system shall support transmission of state mandated data elements for controlled substances dispensed to the PDMP of the state of the pharmacy where the prescription was generated no less than once each night.		Final		Functional Suitability	EHRM Lead	Donna Ellis		
VA-NF-T57	Pharmacy - PDMP tranmission by status	The system shall support filtering and restricting PDMP transmissions by Veteran status.		Final		Functional Suitability	EHRM Lead	Donna Ellis		
VA-NF-T58	Pharmacy - MULTUM licenses	The vendor shall provide licenses and professional services for MULTUM for VistA sites so the VA can have a consolidated drug database system. The vendor will provide an accessible and computatle, and up-to-date equivalence table matching each MULTUM medication code with a clinically equivalent RxNorm code.	Recommend remove from RTM- or provide verbiage for a system requirement. Multumn Deployment detail is in PWS.	Final		Functional Suitability	EHRM Lead	Donna Ellis		
VA-NF-T66	Pharmacy - Remaining Refills	The system shall not require pharmacists to manually re-enter prescriptions that have remaining refills during transition. Existing prescriptions with remaining refills will be available in Cerner and actionable.		Final		Functional Suitability	EHRM Lead	Donna Ellis		
	Reliability / Scalability / Maintanability									
VA-NF-T78	Critical Care	Includes Critical Care - automated workflows and documentation supporting critical care multi-disciplinary teams; Device Connectivity - automated collection of medical data from medical devices to ensure right data, right format,	Sent over from Functional Requirements team for incorporation into Non-Functional RTM.	Final	36695-Workflow 36673-medical device	Functional Suitability	Functional	Marilyn Hodge		
~~VA-NF-T107~~	~~Disaster Recovery~~	~~The system shall met disaster recovery requirements which specify both RTO and RPO requirements as measured by DR tests (annual).~~	Current Mission Critical Systems in VA like Heatlh Data Repository is 12 hours Recovery Time Objective. 2 hours Recovery Point Objective. Recommend remove from RTM, addressed in RHO scope document and PWS 5.3.1 Agreee – RPO and RTO are clearly defined in RHO	Removed		Performance Efficiency	Capacity Performance Engineering Division/EPMO	Kelly, Ed		

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VA-NF-160	Change Management	The system shall provide a documented test solution for any platform/application iteration that introduces changes with the potential to impact end-user performance or compute and storage resources	Cerner: Recommend removal from RTM, not a system requirement, see change mgmt services referenced in PWS 5.5.8. and 5.5.8.1. VA: Recommend to keep: 5.5.7 (pre. 5.5.8) refers to OCM for VA employees. This refers test and eval / configuration mgmt. for changes made to the system.	Final		Maintainability	DEA.04.04.06 Capacity and Scalability (767971)	Marilyn Hodge		
VA-NF-151	Solution Scalability	The system shall support both horizontal and vertical solution scalability.		Final	36679 36680 36692 38600 38604 38605 38606 38607 38616 38617 38618 38619 38620 38621	Portability	DEA.04.04.06 Capacity and Scalability (767971)	Marilyn Hodge		
	Synchronization: Low-Comm / No-Comm									
VA-NF-118	Low-Comm / No- Comm: Home Health	The system shall have the capability to document vitals, encountering/procedure codes, labs, orders, and medications offline, and synch up later for Home Health.	Need clarification and additional use cases from VA due to the technical gap. VA requirements that need to be addressed by low-comm or no-comm: * Natural disaster deployment (possible theater configuration for deployment) * Home health care (sat comm truck) requirement * Homeless care (mobile users on foot)	Final	40513	Functional Suitability	FFRDC - MITRE	Denise McLain		
	~~**Imaging**~~									
~~VA-NF-B04~~		~~For COOP/DR: The system shall be able to identify what images exist, and which of those are in the cache, when a medical center is disconnected from Cerner Data Center.~~	~~7/24 or other local solution must contain a database pointer table that can re-direct to local cache instead of CAMM and allow access to locally-stored images. It will also indicate whether or not an image has been taken if the image is not stored locally (metadata only).~~	~~Final~~						
	Interoperability - Dr. Nebeker									
VA-NF-Z02	FHIR	System shall support the generation of FHIR resources in multiple versions in parallel (e.g.: DTSU 1.0, DTSU V2.0)		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z03	Consent	The system shall meet 45 CFR 170.315 (b)(7-8)		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z04	Consent	The system will be able to manage all manner of consent "decrees" placed by Veterans and their providers. Including: Consent to share all documents, restriction of certain types of documents, restriction of partners with whom documents can be shared, revocation of consent		Final			VA Lead	Dr. Jonathan Nebeker		

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VA-NF-Z05	Consent	The system will be able to support future conversions from one consent methodology to another, ie from opt-in to opt-out.		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z06	Consent	System shall provide a means for patients to fill in, digitally sign (VA approved signature service), and submit electronic consent directives for chart		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z07	Consent	System shall handle interfaces with external products for capture, storage, receipt and implementation of consent directives to enable Veteran online consent management from a number of different locations and interfaces, including kiosks, home pc's and the eBenefits portal. These only authorization will automatically update the Veteran medical record		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z08	Consent	As required by policy, System shall automatically opt-out those patients whose authorizations have expired until a new authorization is entered		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z09	HIE	System shall provide patients with VA defined on-line help and access to Frequently Asked Questions (FAQ) with answers for help with the online process for submitting consent directives or questions about the VHIE program (patient		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z10	HIE	The system will be capable of extracting all transactional data related to consents to analytical warehouse for monitoring (by person, partner, status etc.)		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z11	HIE	The system shall support VA electronic exchange of health records via other interoperable networks (e.g. CareQuality, CommonWell Health Alliance, DirectTrust, National Association for Trusted Exchange) by supporting their specifications, security and content specifications		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z12	HIE	The system shall provide dashboard to monitor data exchanges and provide access to VA exchange performance reports, such as numbers of Veterans documents sent and received and response times. System shall be able to analyze, report and display the performance of outbound transactions [PD, QD, RD, Doc Submission, Direct messages] (average response time, # of total transactions/month, # of failed transactions, point of failures, why failed and where failed, error code w/explanation, other metadata: sent to which partner, sent by which user, mode of request (ROI/pre-fetch/e-benefits/MHV), purpose		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z13	HIE	System shall interface with Record Locator Services provided by CommonWell and other standards-based networks, as approved through		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z14	HIE	By IOC, the system shall connect with all current eHealth Exchange VA partners		Final			VA Lead	Dr. Jonathan Nebeker		
	Informatics									
VA-NF-T46		The system shall support provenance (chain of custody or ownership) and pedigree (processing history how the data was produced or incorporated) and enable identification, collection, and production of data according to source, custody and ownership and display of data in business, logical, legal or physical models.		Final		Functional Suitability	EHRM Lead	Dr. Jonathan Nebeker		
	Service Level Agreement (SLA)									

Ref #	Capabilities	Definition	RTM Clarification	VA Status	DoD Ref (If Applicable)	Type / Category (ISO/IEC 25010:2011)	Source	VA Owner	Met/Not Met *(Cerner Field)*	Solution Name *(Cerner Field)*
VA-NF-Z05	Consent	The system will be able to support future conversions from one consent methodology to another, ie from opt-in to opt-out.		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z06	Consent	System shall provide a means for patients to fill in, digitally sign (VA approved signature service), and submit electronic consent directives for chart		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z07	Consent	System shall handle interfaces with external products for capture, storage, receipt and implementation of consent directives to enable Veteran online consent management from a number of different locations and interfaces, including kiosks, home pc's and the eBenefits portal. These only authorization will automatically update the Veteran medical record		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z08	Consent	As required by policy, System shall automatically opt-out those patients whose authorizations have expired until a new authorization is entered		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z09	HIE	System shall provide patients with VA defined on-line help and access to Frequently Asked Questions (FAQ) with answers for help with the online process for submitting consent directives or questions about the VHIE program (patient		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z10	HIE	The system will be capable of extracting all transactional data related to consents to analytical warehouse for monitoring (by person, partner, status etc.)		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z11	HIE	The system shall support VA electronic exchange of health records via other interoperable networks (e.g. CareQuality, CommonWell Health Alliance, DirectTrust, National Association for Trusted Exchange) by supporting their specifications, security and content specifications		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z12	HIE	The system shall provide dashboard to monitor data exchanges and provide access to VA exchange performance reports, such as numbers of Veterans documents sent and received and response times. System shall be able to analyze, report and display the performance of outbound transactions [PD, QD, RD, Doc Submission, Direct messages] (average response time, # of total transactions/month, # of failed transactions, point of failures, why failed and where failed, error code w/explanation, other metadata: sent to which partner, sent by which user, mode of request (ROI/pre-fetch/e-benefits/MHV), purpose		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z13	HIE	System shall interface with Record Locator Services provided by CommonWell and other standards-based networks, as approved through		Final			VA Lead	Dr. Jonathan Nebeker		
VA-NF-Z14	HIE	By IOC, the system shall connect with all current eHealth Exchange VA partners		Final			VA Lead	Dr. Jonathan Nebeker		
	Informatics									
VA-NF-T46		The system shall support provenance (chain of custody or ownership) and pedigree (processing history how the data was produced or incorporated) and enable identification, collection, and production of data according to source, custody and ownership and display of data in business, logical, legal or physical models.		Final		Functional Suitability	EHRM Lead	Dr. Jonathan Nebeker		
	Service Level Agreement (SLA)									

Ref #	Capabilities	Definition	RTM Clarification	VA Status	DoD Ref (If Applicable)	Type / Category (ISO/IEC 25010:2011)	Source	VA Owner	Met/Not Met *(Cerner Field)*	Solution Name *(Cerner Field)*
VA-NF-000	SLA Baseline as delivered to DoD	The system shall provide, as a baseline, the service level agreement as specified in the Cerner SLA Commercial Offering and MHS Genesis / Leidos SLA.	The VA has reviewed, acknowledged and accepted all of the DoD SLA and Cerner Commercial Offering as our base set of requirements. The following requirements define the VA's specific SLA requirements for the acquisition. Source Ref: Cerner Leidos SLAs.docx, Commercial RHO SLAs and Performance Warranty.docx	Final		Performance Efficiency		John Short		
~~VA-NF-94~~		~~*Successful Transaction Ratio* – The Mission Critical System should return an overall percentage of transactions for a specific operation initiated by a user that are completed successfully (no timeout or other errors detected) within a specified mix of peak and/or non-peak period within targets established by the Project Team. values for mission critical systems are at least 99.9% of the time (99.9% of the transactions being successful), with a goal of 100% of the~~	~~How accurate is the information obtained by the system~~	~~Final~~		Performance Efficiency	EHRM Lead	Marilyn Hodge		
VA-NF-86	Availability	User Operational Availability - System availability exclusive of planned downtime shall be 99.9% for the Tier I production systems as defined in the Hosting Scope document. System availability exclusive of planned downtime shall be 99.9% for the HA-CAS production systems as defined in the Hosting Scope document. HealtheIntent components required for data migration and continuity of care shall have the same SLA and penalties as Tier I production systems as defined in the Hosting Scope document. ~~The System shall be available (uptime not excluding planned downtime) at a percentage of total possible operational time at least 99.9% of the time (downtime not to exceed xx hours/year or xxx minutes/ month), with a goal of 99.99% of the time (downtime not to exceed 0.876 hours/year or~~	Availability - how available is the system for use	Final	partial - 38423, 38582	Reliability	EHRM Lead	Marilyn Hodge		
VA-NF-100	Capacity & Scalability	The provider-facing solutions shall scale to support 328,000 named users and to accommodate current and future VA usage patterns. ~~Solution shall support the expected concurrent processing of data by end-users and other connections commensurate with the rate of 190,000 concurrent users or connections.~~	Concurrent Sessions - Concurrent sessions are every logical connection existing at a given point in time between the database and an end-user interface device. Each such existing connection is counted as a concurrent session whether or not it is actually in use. If an individual end user establishes multiple connections, each one is counted as a separate concurrent session, even if they share a common physical pathway. The number of connections is not reduced by any program or machine, such as a front-end server or multiplexer, which may be used to concentrate the connections. Each batch process being executed at the same time is also considered a concurrent session. This metric is used for correlation purposes against other metrics to understand how many connections are active when a performance issue is exposed. Metric Source: Please refer to VA.ConcurrentUsers.All - Pivot.xlsx provided	Final		Performance Efficiency	EHRM Lead	Marilyn Hodge		

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VA-NF-146	Compute Resource Consumption	Compute resource consumption shall be tested against established requirements and workload projections and supported by a continuous capacity plan to include methods, tools, and processes for monitoring, reporting, and adjusting the operational systems		Final		Performance Efficiency	DEA.04.04.06 Capacity and Scalability (767971)	Marilyn Hodge		
VA-NF-179	Enterprise Service Level Criteria - Maintenance	System maintenance shall be during non-clinical hours as coordinated through joint governance	Scheduled and non-scheduled maintenance should occur between the hours of 1800 and 0600, when clinical usage would be lightest	Final		Maintainability	EHRM Lead	Marilyn Hodge		
~~VA-NF-181~~		~~The system shall recover within minutes (when failover is an option) and 2-8 hours (when failover is not an option)~~	~~The system shall recover as quickly as possible following an outage. Failover system shall be in place and utilized whenever feasible to minimize downtime~~	~~Final~~		Reliability	EHRM Lead	Marilyn Hodge		
~~VA-NF-223~~		~~Threshold = 99.9% (System and application availability to support type of care provided at individual medical units wherever they are~~		~~Final~~	38423, 38582	Performance Efficiency	eHMP NONF3192	Kelly, Ed		
~~VA-NF-T110~~		~~The vendor shall maintain an environment that demonstrates a recovery time objective (RTO) of less than 60 minutes for any service location(s).~~		~~Final~~		Reliability	Capacity Performance Engineering Division/EPMO	Kelly, Ed		
~~VA-NF-T111~~		~~The vendor shall maintain an environment that demonstrates a recovery point objective (RPO) of less than 10 minutes for any service location(s).~~		~~Final~~		Reliability	Capacity Performance Engineering Division/EPMO	Kelly, Ed		
VA-NF-XXX1	Customer Support	Average Speed to Answer will be <= 40 seconds	The length of time that a caller has to wait on hold before the line is answered by the Millennium Service Desk analyst	Final		Customer Support	Enterprise Service Desk	Tim Jones		
VA-NF-XXX2	Customer Support	Abandonment Rate will be <=5% of all calls presented	The percentage of times in which a person calling the Millennium Service Desk gives up calling and hangs up the phone prior to a Millennium Service Desk analyst answering the call.	Final		Customer Support	Enterprise Service Desk	Tim Jones		

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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		508 Compliance
		508 Compliance
		Access Management
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		Access Management

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		508 Compliance
		508 Compliance
		Access Management
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		Access Management

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Access Management
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		Access Management
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		Access Management
		Access Management
		Access Management
		Access Management
		Access Management
		Data Management

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Access Management
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		Access Management
		Access Management
		Access Management
		Access Management
		Access Management
		Access Management
		Access Management
		Access Management
		Access Management
		Data Management

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Data Management
		Data Management
		Data Management
		Data Management
		Identity Management
		Identity Management
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		Identity Management
		Identity Management
		Identity Management

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Data Management
		Data Management
		Data Management
		Data Management
		Identity Management
		Identity Management
		Identity Management
		Identity Management
		Identity Management

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Identity Management
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		Identity Management
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		Identity Management

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Identity Management
		Identity Management
		Identity Management
		Identity Management
		Identity Management
		Identity Management
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Identity Management
		Identity Management
		Identity Management
		Identity Management
		Identity Management
		Identity Management
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
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		Information Assurance / Security

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Information Assurance / Security
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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Information Assurance / Security
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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Interoperability
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		Interoperability
		Interoperability
		Interoperability

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Information Assurance / Security
		Interoperability
		Interoperability
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		Interoperability
		Interoperability

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Interoperability
		Interoperability
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Reliability / Scalability / Maintanability
		Reliability / Scalability / Maintanability
		Reliability / Scalability / Maintanability

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Interoperability
		Interoperability
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Pharmacy
		Reliability / Scalability / Maintanability
		Reliability / Scalability / Maintanability
		Reliability / Scalability / Maintanability

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Reliability / Scalability / Maintanability
		Reliability / Scalability / Maintanability
		Synchronizatio n: Low-Comm / No-Comm
		Synchronizatio n: Low-Comm / No-Comm
		Reliability / Scalability / Maintanability
		Interoperability
		Interoperability
		Interoperability

Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Reliability / Scalability / Maintanability
		Reliability / Scalability / Maintanability
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		Reliability / Scalability / Maintanability
		Interoperability
		Interoperability
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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		Interoperability
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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		SLA
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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
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Development Needed *(Cerner Field)*	**Confirmed in Scope Document** *(Cerner Field)*	Sort Column
		SLA
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		SLA
		SLA
		SLA
		SLA
		SLA

From: Blackburn, Scott R.
To: Sandoval, Camilo J.
Subject: FW: [EXTERNAL] Re: Open API - it is CLOUD + languge + Rasu
Date: Wednesday, March 07, 2018 2:43:00 AM

From: Bruce Moskowitz [(b)(6) @mac.com]
Sent: Wednesday, February 28, 2018 4:53 PM
To: Blackburn, Scott R.
Cc: DJS; Marc Sherman; O'Rourke, Peter M.; IP; (b)(6) @gmail.com
Subject: Re: [EXTERNAL] Re: Open API - it is CLOUD + languge + Rasu

Thank you progress is being made but as my group keeps saying devil is in the details

Sent from my iPhone

On Feb 28, 2018, at 4:36 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Bruce – as promised here is more information on what we will have to address the other 4 issues you mentioned. I still owe you device registry. Let me know if this makes sense or not. Also happy to get you on the phone directly with my experts. - Scott
>
> **Voice Recognition.**
> Our new Cerner EHR platform includes Enterprise Dragon Nuance. VHA currently deploys the enterprise version which maintains people voice print and the Clinical Staff say it works very well (my primary care provider at the Washington VA Medical Center uses it). Cerner will port over the voice prints so the clinicians that use it today will be able to use it tomorrow in Cerner without any rework. The Clinician can use the dictation and other features with voice recognition.
>
> **How will all entered lab data, from any source, be available on a graph**
> Graphs will be available in 2 spots. 1. Workflow MPage lab Component and 2. Results review flowsheet. When outside labs are mapped we would use the same names as internal and then they would appear on the same line. Even if they are not exactly named the same the results review flowsheet allows for 2 different lab values to be graphed together.
>
> **Catching test duplication, over utilization and medication duplication/errors at time of ordering instead of after the fact**
> All tests are configured to have a time where an alert is issued based on parameters we configure and can flex by venue. Over utilization will be avoided with real time alerting but VA would have to use a mechanism to monitor, via report. The med duplication is configured similarly to test and parameters will determine how the system acts. Tall man lettering reduces errors in look alike, sound alike meds, and finally in instances we identify errors we can configure rules to catch those. For meds all allergy checking, dupes, dose range checks, and interactions are checked at time of ordering. As an aside, while the DoD Cerner implementation has been far from perfect this is one area where it has been very successful; the new DoD/Cerner system has already prevented over 15,000 duplicate tests at their initial three sites that have been implemented.
>
> **Streamlined SOAP notes.**
> Yes, the VA/Cerner system will have this. These are provided and will be further configured under VA direction to meet VA clinician needs.

From: Blackburn, Scott R.
Sent: Wednesday, February 28, 2018 2:30 PM
To: 'Bruce Moskowitz'
Cc: DJS; Marc Sherman; O'Rourke, Peter M.; IP; (b)(6) @gmail.com
Subject: RE: [EXTERNAL] Re: Open API - it is CLOUD + languge + Rasu

Bruce – we certainly aren't going to let you get tar and feathered! Again, we really appreciate all the support you've given us.

On these other 4, I'll get you answers on these ASAP. I know these are topics you've brought up in past and we were definitely listening. I've been hammering the team to make sure we incorporate all this feedback into the negotiation. Let me send you the specifics where we have landed to make sure that we got them right. Stand by…

Scott

From: Bruce Moskowitz [(b)(6) @mac.com]
Sent: Wednesday, February 28, 2018 1:13 PM
To: Blackburn, Scott R.
Cc: DJS; Marc Sherman; O'Rourke, Peter M.; IP; (b)(6) @gmail.com
Subject: Re: [EXTERNAL] Re: Open API - it is CLOUD + languge + Rasu

Thank you my five CIO's had looked forward to tar and feathering
me if the cloud is not done correctly!
The other issues are:

Voice Recognition

All entering lab data on a graph from any source

Catching test duplication, over utilization and medication duplication/errors at time of ordering not after the fact

Streamlined SOAP notes

Sent from my iPad
Bruce Moskowitz M.D.

On Feb 28, 2018, at 12:52 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Bruce – this is incredibly helpful. Thank you very much. I had my team dig into this this more this morning. What you have stated below is clearly the intent (we need everything to be OPEN and absolutely do not want to inadvertently create vendor lock); we've also gone back this mornign to confirm with Cerner that this is their intent. We are going to alter the language to make this more clear. We don't anticipate any pushback. A few things I learned this morning…
>
> - The contract does NOT lock us in to Amazon Web Services (AWS). Rather any cloud provider or applications that meet security and privacy requirements to protect Veteran data can interface with Open APIs or push data to the VA/Cerner system.
> - Currently 3 cloud providers meet the Government security requirements – AWS, Azure/Microsoft and CSRA. There are several others that we expect to come on board soon including Google and VirtuStream/Dell. At VA, we use both AWS and Azure right now. Again, the goal here is to create open environment as long as the provider meets certain standards (these standards are dictated by GSA, not VA).
> - Cerner does have a partnership with AWS (which is why we highlighted that) but it is just one example of the open could environments they are planning to work with. We have confirmed that it will be OPEN and not proprietary to their specific AWS cloud.
> - DoD is excited to follow our lead on all of this. I spent the morning at the Pentagon with the DoD CIO/team. This will help not just Veterans, but servicemembers still in uniform.
>
> Thanks again for the feedback and support. We are going to make sure this is crystal clear.
>
> Scott

From: Bruce Moskowitz [(b)(6)@mac.com]
Sent: Tuesday, February 27, 2018 9:29 PM
To: Blackburn, Scott R.
Cc: DJS; Marc Sherman; O'Rourke, Peter M.; IP [(b)(6)@gmail.com
Subject: [EXTERNAL] Re: Open API - it is CLOUD + languge + Rasu

Apologize for the wording instead of their commercial cloud a cloud based system open
To all entities and instead of Amazon it should be all platforms working to accelerate health care iniatives

Sent from my iPad
Bruce Moskowitz M.D.

On Feb 27, 2018, at 9:20 PM, Bruce Moskowitz <(b)(6)@mac.com> wrote:

> To clarify further it states their commercial cloud instead a commercial cloud
> Open to all entities and of equal importance an open platform to all not just amazon but to all
> Working on

Sent from my iPad
Bruce Moskowitz M.D.

On Feb 27, 2018, at 8:20 PM, Bruce Moskowitz <(b)(6)@mac.com> wrote:

> This is a problem it should say open cloud to all entities not commercial cloud
> Second it should be open platform and not just Amazon to all entries working on health care platforms.
>
> Sent from my iPhone
>
> On Feb 27, 2018, at 6:09 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:
>
> David/Bruce/Marc – here are a few updates:
>
> #1) **Rasu is all** in as far as starting to help right away. I just got off the phone with him. He has UPMC commitments rest of this week and is Chairman of HiMSS Innovation committee (so we will all be at HiMSS together next week). However if he needs to come to Washington this week for something, he will find a way to do it (and we will use invitation travel to pay for it). He is willing to start engaging right away to help us. He said he doesn't have to wait for the IPA paperwork to come through for him to help. I've attached Rasu's CV in case you need it.
>
> #2) **The APIs are cloud based.** Here is the response from our Technical lead…
> - The Open APIs that VA has access to from Cerner reside in their Commercial Cloud environment. This environment is designed to scale to accommodate Cerner's entire remote hosted customer base.
> - In a recent press release Cerner and Amazon announced that they would be working together in cooperation to accelerate HealthCare Innovations.
>
> **#3) Below is the IP language** that we negotiated (b)(5)
> (b)(5)
>
> Of importance: Third[MIT1] party API developers shall retain their IP rights when their API is used to connect to the Cerner interface, and there will be no derivative Contractor IP ownership when third parties consume Cerner terminology through open APIs.
>
> Regarding the question on sharing development with others, see PWS Section 5.5.4 opening paragraph: To accelerate better and more responsive service to the Veteran, VA is making a deliberate shift towards becoming a standards[MIT2] -based API driven digital enterprise. A cornerstone of this effort is the setup of a strategic Open API Program, The Digital Veteran Platform API Gateway, that is adopting an outside-in, value-to-business driven approach to create API's that are managed as products to be consumed by developers within and outside of VA.
>
> Finally, Cerner's response and the final negotiation language on sharing their data model as a result of the Interoperability Panel findings is as follows, Cerner agreed to suggested addition of PWS paragraph 5.8(h) as highlighted at no additional cost:

49	Understand how Cerner will provide the VA with access to the data model, share data for analytics freely to 3rd parties, increase the amount of computable data exchanged with 3rd parties. Panelists acknowledged this recommendation is a stretch goal.	RFP Section 5.8 address the support to business intelligence and data analytics. Section 5.10.4.1 supports the sharing of Contractor proprietary information/data model extension points (e.g., ingestion and record APIs) with both international and national standards designating organizations. However, current language does not require access to the EHRM data model, supporting understanding of and therefore increase the exchange of computable data with community care providers.	Suggest adding to RFP Section 5.8: "h) Provide the VA EHRM data model, underpinning terminology model, tables, definitions, and examples of fully populated Veteran data files. Provide documentation or software that is used for quality checks and that illustrate what data elements are computable." Suggest adding to Section 5.10.4.1: "n) The Contractor shall support Knowledge Interoperability by supporting the extension of clinical content assets such as terminologies, clinical decision support rules, order sets, etc. This includes the ability to curate, extend, and share that knowledge with clinical partners. This fosters rapid adoption from industry best practices, e.g., clinical professional societies." Suggest VA obtain a price from the Contractor to provide a report explain the steps involved in accessing the data model, including producing an example data file, and demonstrating how much of the data is computable; provide cost estimates for outside parties to access the data via this mechanism.	**Cerner Concur, with requested change:** Suggest adding to Section 5.10.4.1: "n) The Contractor shall support Knowledge Interoperability by supporting the extension of clinical content assets such as terminologies, clinical decision support rules, order sets, etc., **to the extent such extensions are consistent with the model and best practices of the controlling national standard**. This includes the ability to curate, extend, and share that knowledge with clinical partners. This fosters rapid adoption from industry best practices, e.g., clinical professional societies."	Concur with Cerner edit, negotiated inclusion at no additional cost. Cerner's edits consistent with intent of recommendation.

> -Scott
>
> <EHRM _ National Interoperability Cooperative Commitment (NIC2) - DRAFT_2....pptx>
> <Rasu Shrestha MD_v2018 02_CV and Bio2.pdf>

NON-DISCLOSURE AGREEMENT (Dated March 13, 2018)

1. I acknowledge that I have been selected to participate in the planning for an electronic health record acquisition. In the course of participating in this acquisition, I may be or have been given access to or entrusted with Source Selection Information (as defined in Federal Acquisition Regulation (FAR) 2.101 and 3.104), and/or other sensitive Government data marked as "proprietary" (e.g., restrictive legend per FAR 52.215-1) that I cannot release to others nor can I use for the financial benefit of others or myself.

Source Selection Information is defined in FAR 2.101 & 3.104 and other sensitive Government data includes data marked as "proprietary" (e.g., restrictive legend per FAR 52.215-1). Data includes all data, information and software, regardless of the medium (e.g. electronic or paper) and/or format in which the data exists, and includes data which is derived from, based on, incorporates, includes or refers to such Source Selection and/or proprietary data (collectively referred to herein as "the data"). Any data which is derived from, based on, incorporates, includes or refers to data shall be treated as Source Selection, or proprietary data and shall be subject to the terms of this Non-Disclosure Agreement.

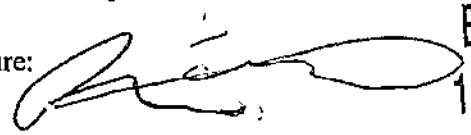
2. I understand that 41 U.S.C. § 423, commonly referred to as the Procurement Integrity Act, and now codified at U.S.C.A. § § 2101-2107, and provisions FAR 3.104 govern the release of proprietary and source selection information . As it relates to the information that has been made available to me pursuant to this Non-Disclosure Agreement, I certify that I will not disclose any contractor bid, solicitation, proprietary, or Source Selection Information directly or indirectly to any person other than the President of the United States or a member of his administration to whom the President authorizes, another person subject to an equally restrictive Non-Disclosure Agreement related to the subject matter of this Agreement, the Secretary of the Department of Veterans Affairs or a person authorized by the head of agency or the contracting officer to receive such information. I understand that unauthorized disclosure of such information may subject me to substantial administrative, civil and criminal penalties, including fines, imprisonment, and loss of employment under the Procurement Integrity Act or other applicable laws and regulations.

3. I certify that I will not discuss evaluation of source selection matters with any unauthorized individuals (including Government personnel other than those set out in Paragraph 2 above), even after contract award, without specific prior approval from proper authority.

4. These provisions are consistent with, and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling. These statutes and Executive orders include the following:

☐Executive Order No. 12958;
☐The Privacy Act (5 U.S.C. § 552a);
☐The Trade Secrets Act (18 U.S.C. § 1905);
☐Section 7211 of title 5, United States Code (governing disclosures to Congress);
☐Section 1034 of title 10, United States Code, as amended by the Military Whistleblower Protection Act (governing disclosure to Congress by members of the military);
☐Section 2302(b)(8) of title 5, United States Code, as amended by the Whistleblower Protection Action (governing disclosures of illegality, waste, fraud, abuse or public health or safety threats);
☐The Intelligence Identities Protection Act of 1982 (50 U.S.C. § 421 *et seq.*) (governing disclosures that could expose confidential Government agents); and
☐The statutes which protect against disclosure that may compromise the national security, including sections 641, 793, 794, 798, and 952 of title 18, United States Code, and section 4(b) of the Subversive Activities Act of 1950 (50 U.S.C. § 783(b)).

Additionally, pursuant to 38 Code of Federal Regulations 1.201, all VA employees with knowledge or information about actual or possible violations of criminal law related to VA programs, operations, facilities, contracts, or information technology systems shall immediately report such knowledge or information to their supervisor, any management official, or directly to the Office of Inspector General.

Signature: 

BRUCE MOSKOWITZ, M.D.
1411 N. FLAGER DR., #7100
WEST PALM BEACH, FL 33401

Name Printed: Bruce Moskowitz, MD

Organizational Conflict(s) of Interest (OCIs):

From: Bruce Moskowitz
To: Blackburn, Scott R.
Cc: IP; (b)(6) @gmail.com; O"Rourke, Peter M.
Subject: Re: [EXTERNAL] EMR calls
Date: Thursday, March 15, 2018 9:53:13 AM

Thank you this is important information. I can walk everyone through the device registry and the nutritional platform.
The critical area that is the main part of your due diligence which is much appreciated is remote patient monitoring. This will be the hospital platform of the very near future for the VA and is already well done in the private sector. Chris Ross CIO at Mayo made a good point that the contract should not tie the VA to only this vendor for this important function. This technology is getting better at an accelerated pace. We could get stuck with a platform that is outdated and the contract will not allow us to innovate with another platform.

Sent from my iPad
Bruce Moskowitz M.D.

> On Mar 15, 2018, at 9:24 AM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:
>
> Bruce, thanks for raising this. Below is what I learned about what we have for intensive care units interacting with a central monitoring system. Let me know if this sounds right to you. Also you rattled off a couple of things (nutritional layout from Tufts, field to input the serial number for items in the device registry); if you could send me those I can hunt those down as well to save time. I just got off the phone with Stephanie Reel and she is excited to help; speaking to a few others at 11:30am ET.
>
> The Cerner solution for ICU central monitoring, as part of the VA EHR, utilizes Cerner's CareAware iAware framework through the Apache Outcomes solution. This solution has the capability to configure dashboard views to enable monitoring of high acuity areas, specifically around performance and patient care. This capability is included in the scope of the Cerner acquisition as the Critical Care System, Cerner Apache Outcomes solution and End User License Agreement.
>
> Does this capability also monitors emergency rooms, recovery rooms and telemetry beds?
> The current acquisition solutions meet these requirements and can be configured into a central command center model.
> * Emergency Room: Emergency Department (ED) Dashboard is built into the Emergency Department Care Management to monitor progression of patients through the patient care process. This solution has been included as an Emergency Medicine System and End User License Agreement.
> * Recovery Room: Surgical Management solution has tracking boards to monitor patient progress and efficiency of care provided. This solution has been included as Perioperative System and End User License Agreement.
> * Telemetry Beds: Traditional central monitoring systems as are used in telemetry, exist within the VA's current environment. During the acquisition process it was decided that these solutions will persist into the future state to reduce costs for the VA. However, the acquisition includes integration of this capability.
>
> In addition to these monitoring capabilities, CareAware Patient Flow, which is Cerner's capacity management solution that helps to operationalize patient care activities such as room cleaning offers specific dashboards that can be centralized to support a central command center model.
>
>
> -Scott
>
> -----Original Message-----
> From: Bruce Moskowitz (b)(6) @mac.com]
> Sent: Wednesday, March 14, 2018 12:18 PM
> To: Blackburn, Scott R.
> Subject: [EXTERNAL] EMR calls

>
> To save time can you tell me if the Cerner contract has a provision to have the EMR that is in Intensive care units interact with a central monitoring system? Currently all major institutions have a command and control center staff that monitors intensive care units located in different hospitals in their system. The future is expanding this to monitor emergency rooms, recovery rooms and telemetry beds. If it is not in place which should be a standard part of the contract we will have billions in further costs to the system.
>
> Sent from my iPad
> Bruce Moskowitz M.D.

From: Blackburn, Scott R.
To: Bruce Moskowitz
Cc: (b)(6) @gmail.com
Subject: RE: [EXTERNAL] Follow up meeting
Date: Monday, November 27, 2017 10:42:00 AM

Thank you Bruce. Very helpful.

From: Bruce Moskowitz [(b)(6) @mac.com]
Sent: Monday, November 27, 2017 10:18 AM
To: Blackburn, Scott R.
Cc: (b)(6) @gmail.com
Subject: Fwd: [EXTERNAL] Follow up meeting

I should point out this would be ideal functionality requirements of any EMR contract if not part of what has been reviewed by the VA we need to discuss these points further since they are derived from the previous meeting points made by the CIO's and we can again cover them in the agenda

Sent from my iPad
Bruce Moskowitz M.D.

Begin forwarded message:

> **From:** Bruce Moskowitz <(b)(5) @mac.com>
> **Date:** November 27, 2017 at 8:41:19 AM EST
> **To:** "Blackburn, Scott R." <(b)(5) @va.gov>
> **Cc:** '(b)(5) @gmail.com" <(b)(5) @gmail.com>
> **Subject: Re: [EXTERNAL] Follow up meeting**
>
> Prior to any meeting we need to know what is not in the contract so we can make progress:
>
> Cerner Contract has to have the responsibility of 100% connectivity to all EMR platforms for Choice to work
>
> Cerner has to have telemedicine built into the system
>
> Cerner needs to tract duplicate diagnostic testing
>
> Cerner needs to have medication error, tracking of controlled substances and duplicate prescription monitoring
>
> Cerner needs to tract appointment times between the VA and the Choice Program.
>
> Cerner needs to have voice recognition built in
>
> These are the basics we need to know prior to writing an agenda and meeting.
>
> Thank you

Sent from my iPad
Bruce Moskowitz M.D.

On Nov 26, 2017, at 9:23 AM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Bruce - thanks for the note. I hope you and Marc both had a great Thanksgiving.
>
> Sounds good on all below. Let's shoot for the week of December 11th or December 18th in Washington. If the CIOs can get us the list of issues by December 5th, we will turn around the gap analysis quickly. Happy to work with Stephanie, Andrew and Marc on the agenda development - that would be very helpful.
>
> Scott
>
> -----Original Message-----
> From: Bruce Moskowitz (b)(6) @mac.com]
> Sent: Friday, November 24, 2017 7:08 PM
> To: Blackburn, Scott R.
> Cc: (b)(6) @gmail.com
> Subject: [EXTERNAL] Follow up meeting
>
> I am speaking for myself and it would seem to me that holding it at Cerner would restrain an open honest discussion of what is needed to insure that we have all the key pieces to have the the EMR that we all see as a necessity to provide the end users with all tools necessary to provide quality care. The five CIO's are very knowledgeable regarding all capabilities of Cerner. I have been an end user of Cerner and know as do the CEO's the process to quickly move the agenda forward. We are committed to your adoption of Cerner as the EMR however being rushed into a contract without due diligence on our part would be problematic. We can be available for a meeting in Washington ASAP fully realizing some will need to be on a conference call. I would recommend an agenda that reflects the way forward by both groups and would recommend you allow Stephanie Reel,Andrew Karson and Marc Sherman to assist in the agenda development.
>
> Sent from my iPad
> Bruce Moskowitz M.D.

From: Blackburn, Scott R.
To: Marc Sherman
Subject: RE: [EXTERNAL] Re: 5 minutes today?
Date: Wednesday, January 03, 2018 7:48:31 PM

Marc - no problem at all. If you can, give me a quick call after dinner. I'm unfortunately having back surgery tomorrow morning so will be unavailable all day tomorrow.

If we can't connect tonight, I think we should be ok. I want to make sure we involve Bruce on Friday and was seeking your advice. Looks like he can't be there in person but we are either going to involve him via phone (which won't be optimal) or the MITRE folks are going to meet with him on Monday.

Scott
(b)(6)

Sent with Good (www.good.com)

From: Marc Sherman
Sent: Wednesday, January 03, 2018 7:07:36 PM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: 5 minutes today?

Scott

I'm very sorry for the delayed response. I got overwhelmed today with matters that took every minute of my time. I am actually just seeing your message now. I'm leaving for a dinner appointment and am happy to talk when I get back (likely around 9:30 p.m.), if that works for you. If not I could talk first thing in the morning, at a time that works best for you.

Marc

Marc Sherman
(b)(6)

On Jan 3, 2018 10:56 AM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:

> Marc – happy new year! Do you have 5 minutes to connect sometime today?
>
> Thanks,
>
> Scott
>
> **Scott Blackburn**

Acting CIO & Executive-in-Charge, Office of Information & Technology

Department of Veterans Affairs

From: Blackburn, Scott R.
To: Marc Sherman
Cc: Schnitzer, Jay J; IP; Bruce Moskowitz
Subject: RE: [EXTERNAL] Re: CIOs
Date: Wednesday, January 17, 2018 10:45:00 AM

That works. Talk to you then.

If you have a dial in that you prefer, let us know. Otherwise I can ask my assistant to send one out.

From: Marc Sherman (b)(6)@gmail.com]
Sent: Wednesday, January 17, 2018 10:37 AM
To: Blackburn, Scott R.
Cc: Schnitzer, Jay J; IP; Bruce Moskowitz
Subject: RE: [EXTERNAL] Re: CIOs

If today, 7:30pm?

Marc Sherman
(b)(6)

On Jan 17, 2018 9:28 AM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:
Marc – thanks so much for the support. Good idea to jump on the phone to discuss. Today is best for me, but I can make tomorrow work as well. Am sure Jay will be flexible as well. Do you want to propose a time?

Scott

From: Marc Sherman (b)(6)@gmail.com]
Sent: Wednesday, January 17, 2018 9:12 AM
To: Blackburn, Scott R.
Cc: Schnitzer, Jay J; IP; Bruce Moskowitz
Subject: [EXTERNAL] Re: CIOs

Scott

I understand the goal, but not certain I understand the process or approach to solving the goal. Would you and Jay be available late today or tomorrow to discuss so I know better what you are asking? I am copying Bruce and Ike so they know what my thoughts/questions are as well.

Marc

On Mon, Jan 15, 2018 at 3:23 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:
Marc,

I hope you had (or are still having) a nice MLK weekend. One thing that came out of discussions with the Secretary last week that I was wondering if we could get you/Bruce's help on.

The Secretary asked MITRE to help us understand what it would take for one of the large Epic based health care systems (e.g., Johns Hopkins, Cleveland Clinic, Kaiser Permanente, Partners, Mayo Clinic, Geisinger) to be able to "plug into" (my words) the future VA/Cerner based systems to seamlessly exchange data. We keep hearing that it would only be a modest technology investment and would instead require these providers to demand this as a requirement of Epic (we will be able to demand it of Cerner). He has asked MITRE to better understand this and estimate how much would it cost (is it a $100k investment, a $1m, $10m, $100m or a $1b investment?).

In order to do this, MITRE would need the help of the CIOs. Ideally the Secretary would love to announce commitments of these healthcare systems to do this when he gives the keynote at HIMSS in Las Vegas on March 9.

Is this something you guys would be willing to help with? I am cc'ing Dr. Jay Schnitzer from MITRE who is helping us out (I believe you met Jay at least via phone last week).

Thanks,
Scott

Scott Blackburn
Executive in Charge, Office of Information & Technology
US Department of Veterans Affairs

From: Blackburn, Scott R.
To: Marc Sherman
Cc: Schnitzer, Jay J
Subject: RE: [EXTERNAL] Re: CIOs
Date: Monday, January 15, 2018 10:49:05 PM

Thanks Marc. Greatly appreciated.

And so far so good on recovery.

Sent with Good (www.good.com)

From: Marc Sherman
Sent: Monday, January 15, 2018 10:44:56 PM
To: Blackburn, Scott R.
Cc: Schnitzer, Jay J
Subject: [EXTERNAL] Re: CIOs

Scott,

Bruce and I will discuss and I will get back to you after. I hope you are recovering strongly.

Marc

On Mon, Jan 15, 2018 at 3:23 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Marc,
>
> I hope you had (or are still having) a nice MLK weekend. One thing that came out of discussions with the Secretary last week that I was wondering if we could get you/Bruce's help on.
>
> The Secretary asked MITRE to help us understand what it would take for one of the large Epic based health care systems (e.g., Johns Hopkins, Cleveland Clinic, Kaiser Permanente, Partners, Mayo Clinic, Geisinger) to be able to "plug into" (my words) the future VA/Cerner based systems to seamlessly exchange data. We keep hearing that it would only be a modest technology investment and would instead require these providers to demand this as a requirement of Epic (we will be able to demand it of Cerner). He has asked MITRE to better understand this and estimate how much would it cost (is it a $100k investment, a $1m, $10m, $100m or a $1b investment?).
>
> In order to do this, MITRE would need the help of the CIOs. Ideally the Secretary would love to announce commitments of these healthcare systems to do this when he gives the

From: Blackburn, Scott R.
To: Marc Sherman
Subject: RE: [EXTERNAL] Re: Follow ups
Date: Thursday, December 14, 2017 12:22:00 AM

Thanks Marc. This is great. I really appreciate it.

From: Marc Sherman [(b)(6)@gmail.com]
Sent: Thursday, December 14, 2017 12:20 AM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: Follow ups

Scott

Great meeting you also, thanks for a very enjoyable conversation and thanks for passing on my greetings to Melissa. She emailed me to let me know you passed it on.

On the three items, we are already on items 1 and 2. Bruce has communicated with the CIOs to ask them to complete the punch list items as soon as possible. He has also formally request of each of the CIOs to recommend a current #2 CIO type person from one of their institutions (or elsewhere) that can take that role. We will get back to you as we receive info from both of these requests. He asked each CIO to prepare their own list and then Bruce and I will combine them and remove duplication before we send one combined list to you.

On item 3, we decided to wait until we get the punch lists from them (since we don't know their timing) to get their availability for a January meeting date. But we have that on the to do list.

Marc

On Thu, Dec 14, 2017 at 12:12 AM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:
Marc,

It was great meeting you in person earlier this week. Thank you so much for the offers to help. I really appreciate all that you and others are doing.

I just wanted to follow up on 3 items we discussed.

#1) Identifying an experienced executive willing to become a government employee ('insider') to help us drive this from the inside. As discussed, outside advisors/consultants can only do so much in government due to ethics laws, etc. We really need someone on the inside. The pay stinks (I took a pay cut from $1m+ down to $171k per year) and it is a pain in the neck – but also tremendously fulfilling. This person is really going to want to do it for the greater good. There are two options that could work.

- A Kurt Heyssel like executive that we could hire as a "India Pale Ale" (or whatever IPA stands for). This would be one of the 5 CIOs #2 or something like that.

- A former CIO that we can trust that doesn't need the money. We have the ability to

From: Blackburn, Scott R.
To: Marc Sherman
Subject: RE: [EXTERNAL] Re: FW: Follow ups
Date: Thursday, December 21, 2017 9:16:00 PM

Thanks Marc. I appreciate all the help.

I spent this morning on Capitol Hill making sure the staff understands the logic behind the delay and is on board. I think we are in a good spot with them for now. Congressman Roe clearly gets it, as you predicted. Some of the others, less so…but we'll be ok.

Scott

From: Marc Sherman (b)(6) @gmail.com]
Sent: Thursday, December 21, 2017 9:27 AM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: FW: Follow ups

All three of these items are actively in progress. I know they are all working on #1. On the third item, Bruce has identified multiple candidates and I will be talking to him later today and will get a more detailed update and get back to you.

On Wed, Dec 20, 2017 at 2:53 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:
Marc – I hope you are having a great week. I want to follow up on 3 things:

- Any progress on the punch-list of issues from the 5 CIOs? Is there anything I can do to help this along? The Secretary has been nagging me about this.

- Were you able to connect with Bruce and/or the 5 CIOs to see if anyone of them would be willing to help with a January external review of interoperability solutions? This is similar to the punch-list but will be more public. As I mentioned, MITRE will be helping put this together for us. The Office of American Innovation has given us a few suggestions that we will include. We have connected with Dr. Frank Opelka from the American College of Physicians and he will be working together with us on this.

- Any luck identifying an executive that would be willing to come on as a government employee? The Secretary has also been nagging me about this.

Thanks so much! I hope you are enjoying the holidays and will hopefully get some time off over the break.
Scott

From: Blackburn, Scott R.
To: Marc Sherman; Bruce Moskowitz
Cc: (b)(6)
Subject: RE: [EXTERNAL] Re: FW: VA EHR Call
Date: Monday, March 19, 2018 8:40:56 AM

Great. Talk to you then.

Sent with Good (www.good.com)

From: Marc Sherman
Sent: Monday, March 19, 2018 8:21:07 AM
To: Blackburn, Scott R.; Bruce Moskowitz
Subject: [EXTERNAL] Re: FW: VA EHR Call

Scott

In response to your question, I will be on the call at noon today.

Marc

Marc Sherman
(b)(6)

On Mar 18, 2018 3:11 PM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:

> Bruce/Marc – I hope you are both having a great weekend.
>
> We have a call scheduled from noon-12:45 tomorrow. The intent of this was to have our contracting guys (John Windom, (b)(6) walk you through how to read the government contract (which is obviously very different from typical private sector contracts). I just want to make sure you are clear on the purpose of this call and check to make sure you still want to do this. We did this with each of the CIOs/Doctors last week.
>
> Scott
>
> _____
> **From:** (b)(6)
> **Sent:** Sunday, March 18, 2018 2:36 PM
> **To:** Blackburn, Scott R.
> **Subject:** RE: VA EHR Call
>
> Mr. Blackburn, I had scheduled this call with Dr. Bruce and Marc Sherman for the contract overview. Do you want to keep it or can I cancel it? Thanks, (b)(6)
>
> -----Original Appointment-----
> **From:** VA CIO Executive Schedule
> **Sent:** Thursday, March 15, 2018 11:23 AM

From: Blackburn, Scott R.
To: Marc Sherman
Subject: RE: [EXTERNAL] Re: Next time you are in DC?
Date: Monday, December 11, 2017 12:07:08 PM

Hi Marc - I am Woodward Table by the bar. My cell is (b)(6)

Scott

Sent with Good (www.good.com)

From: Marc Sherman
Sent: Wednesday, December 06, 2017 9:47:23 PM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: Next time you are in DC?

Scott

Thanks for the nice email. I will be in DC and could have lunch this coming Monday (Dec 11). After that, I will be in NY for several days and then gone until after New Year's. Let me know if the 11th lunch would work for you.

Marc

On Wed, Dec 6, 2017 at 7:21 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Marc –
>
> David mentioned the two of you had lunch together the other day. He mentioned that you/I should get together whenever you are in town next. Let me know as I would love to get together.
>
> Scott
>
> Scott Blackburn
>
> Executive in Charge, Office of Information & Technology
>
> US Department of Veterans Affairs

From: Blackburn, Scott R.
To: Marc Sherman
Cc: (b)(6)
Subject: RE: [EXTERNAL] Re: Next time you are in DC?
Date: Wednesday, December 06, 2017 10:19:54 PM

Marc - Monday will work. I look forward to it. CCing (b)(6) who can help us coordinate.

See you then,
Scott

Sent with Good (www.good.com)

From: Marc Sherman
Sent: Wednesday, December 06, 2017 9:47:23 PM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: Next time you are in DC?

Scott

Thanks for the nice email. I will be in DC and could have lunch this coming Monday (Dec 11). After that, I will be in NY for several days and then gone until after New Year's. Let me know if the 11th lunch would work for you.

Marc

On Wed, Dec 6, 2017 at 7:21 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Marc –
>
> David mentioned the two of you had lunch together the other day. He mentioned that you/I should get together whenever you are in town next. Let me know as I would love to get together.
>
> Scott
>
> Scott Blackburn
>
> Executive in Charge, Office of Information & Technology
>
> US Department of Veterans Affairs

From:	Blackburn, Scott R.
To:	Marc Sherman
Subject:	RE: [EXTERNAL] Re: Stan Huff
Date:	Wednesday, March 21, 2018 8:24:00 AM

No problem Marc. Thanks for all your help. Very helpful call last night.

From: Marc Sherman [(b)(6)@gmail.com]
Sent: Wednesday, March 21, 2018 12:12 AM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: Stan Huff

Scott

I won't be able to join the call tomorrow as I have a previous commitment that I cannot move. I will catch up with you or Bruce after.

Marc

Marc Sherman
(b)(6)

On Tue, Mar 20, 2018, 10:30 PM Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Bruce/Marc – thanks for introducing us to all the experts we talked to tonight. It was extremely valuable.
>
> We have Stan Huff from Intermountain tomorrow at 10am. I assume you have the calendar invite, but just in case it is (b)(6)
>
> We have been unable to schedule anything with Dr. Ko (very busy calendar). We will trying.
>
> Scott
>
> Scott Blackburn
> Executive in Charge, Office of Information & Technology
> US Department of Veterans Affairs

From:	Blackburn, Scott R.
To:	Marc Sherman
Cc:	Bruce Moskowitz; Schnitzer, Jay J
Subject:	RE: [EXTERNAL] Re: Thanks!
Date:	Thursday, January 18, 2018 4:27:00 PM

Thanks. I am feeling better every day. I had my post-op appointment this morning and the doctor says I'm progressing well.

From: Marc Sherman (b)(6)
Sent: Thursday, January 18, 2018 4:25 PM
To: Blackburn, Scott R.
Cc: Bruce Moskowitz; Schnitzer, Jay J
Subject: [EXTERNAL] Re: Thanks!

Thank you Scott. We really appreciate the feedback and your and Jay's openness. I hope you both know that our interest is the VA's best interest (and the interest of those charged with its oversight). We stand ready to help as things move forward.

I hope your recovery is progressing from the surgery…forgot to inquire last night and apologize for that.

All the best

Marc (and on behalf of Bruce)

On Thu, Jan 18, 2018 at 3:34 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:
Marc/Bruce – I just want to say thank you once again for the support, partnership, and sage advice. Great conversation last night and I appreciate you guys being direct/blunt in your feedback. As I mentioned – being a former college QB (w/ tough coaches), a former Army officer, and having spent 10 years in McKinsey's feedback culture – you don't ever have to worry about my feelings being hurt.

I had a good conversation with the Secretary this morning and he too appreciates the feedback. We will adjust and are working on refining our next steps.

Thanks again,
Scott

Scott Blackburn
Action CIO
US Department of Veterans Affairs

From: Blackburn, Scott R.
To: Marc Sherman
Subject: RE: [EXTERNAL] Re: VA interoperability
Date: Friday, December 15, 2017 2:43:29 PM

Tomorrow is good. Thanks so much. Give me a call whenever is convenient for you. (b)(6)
(b)(6)

Sent with Good (www.good.com)

From: Marc Sherman
Sent: Friday, December 15, 2017 2:26:21 PM
To: Blackburn, Scott R.
Subject: [EXTERNAL] Re: VA interoperability

Today is tough. It would be easier tomorrow afternoon if that would work for you.

Marc Sherman
(b)(6)

On Dec 15, 2017 12:59 PM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:

> Marc – thanks again for all the help. If you have 10 minutes via phone, I would love to connect either this afternoon or over the weekend to get your thoughts/advice.
>
> Thanks,
>
> Scott
>
> (b)(6)
>
> Scott Blackburn
>
> Acting CIO & Executive in Charge, Office of Information & Technology
>
> US Department of Veterans Affairs

From: Marc Sherman (b)(6) @gmail.com]
Sent: Thursday, March 15, 2018 10:54 AM
To: Blackburn, Scott R.
Cc: IP; Laura Perlmutter; Bruce Moskowitz; (b)(6) Windom, John H.; (b)(6)
Subject: [EXTERNAL] Re: VHA EHR - 2 calls that my assistant will set up

Scott and Matt

I received a document download email with a password from

AMRDEC Safe Access File Exchange

However, Bruce has not received a similar email. Can you please get that to him?

Marc

On Mar 13, 2018 2:04 PM, "Blackburn, Scott R." <Scott.Blackburn@va.gov> wrote:

Marc/Bruce/Ike – thank you so much for the prompt replies. I just spoke to Bruce.

We've got 100% participation (Stephanie Reel, Stan Huff, Jon Manis, Dr. Ko, Dr Karson, Dr. Cooper, and Dr. Shretha) and we are moving forward. (b)(6) (cc'd, our contracting officer) is making sure everyone has the right material. (b)(6) (my assistant, cc'd here) will be organizing a few phone calls in 2 steps:

Step 1 – Basic orientation to the government contract structure. This will be a 30-45 minute orientation so that folks know what they are looking at. John Windom and (b)(6) will host this and clue people into the parts to focus on and parts that are standard government things that are less relevant. This can be done in groups (ideally) or in one-offs to fit to accommodate people's busy schedules (b)(6) has already scheduled 2 times in case these work for you. If they do not, she will work with your schedulers to find other times in the next 24-48 hours (sooner the better).

- Thursday 8:30-9:15am ET – Stephanie Reel confirmed
- Thursday 11:30am-12:15pm ET – Stan Huff confirmed

Step 2 – Feedback calls. Per Bruce's idea, we'll schedule 2 separate feedback calls for early next week. Both 90 minutes each. We are aiming for Monday, Tuesday or Wednesday at the latest. (b)(6) will set these up.

- CIOs (Reel, Huff, Manis, Shretha – and of course each of you are encouraged to join)
- Doctors (Dr. Karson, Dr. Ko, and Dr. Cooper – and of course each of you are encouraged to join)

Let me know how this sounds. Thank you again for your support and assistance on this critical matter.

Scott

From: Marc Sherman (b)(6) @gmail.com]
Sent: Tuesday, March 13, 2018 1:40 PM
To: Blackburn, Scott R.
Cc: IP; (b)(6) @gmail.com; Bruce Moskowitz; (b)(6) Windom, John H.; DJS

Subject: [EXTERNAL] Re: VA EHR NDA

Scott, (b)(6) and John

Thank you for the NDA draft that you sent along and the organized approach. I have attached the following to close the loop:

1. a marked up version of the NDA with a few necessary adjustments in red-line so you can see the changes that were made,
2. a blank copy of the amended NDA for Bruce and Ike to sign, and
3. a signed version by me of the amended NDA.

Thanks and happy to help as requested.

Marc

On Tue, Mar 13, 2018 at 10:31 AM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

Ike, Bruce, Marc:

Thank each of you for agreeing to lend an extra set of outside eyes on the EHR contract. We appreciate your support and want to make sure we get to the best place possible for Veterans, the country and taxpayers. As we are incredibly grateful to you for volunteering your time, we want to make this as easy as possible for you. Here are 3 next steps.

1) We will need you to sign the attached NDA. Please return to (b)(6) (cc'd).

2) (b)(6) will then send you the latest package under separate cover.

3) Given government contracts are different than what you are used to reading, we would propose a quick phone call so that we can orient you to the contract and help focus you on the parts where your expertise will be most valuable. (b)(6) (who is the government contracting officer) and John Windom (who is our EHR leader) will lead this from our side. I will ask (b)(6) (b)(6) (cc'd) here to help set up a time. We can either do this all together, if

calendars match up, or separately if need be.

We have also connected with Stephanie Reel, Stan Huff, Dr. Karson, Dr. Ko, Dr. Shretha, and Jon Manis who all have all received the NDA and we are working with them. I am hoping to connect with Dr. Cooper today.

Thanks again!

Scott

Scott Blackburn

Acting CIO & Executive-in-Charge, Office of Information & Technology

Department of Veterans Affairs

From: Bruce Moskowitz
To: Blackburn, Scott R.
Cc: IP; (b)(6)@gmail.com; (b)@frenchangel59.com
Subject: Re: [EXTERNAL] Stan Huff
Date: Wednesday, March 21, 2018 1:46:14 PM

Thank you

Sent from my iPad
Bruce Moskowitz M.D.

> On Mar 21, 2018, at 1:08 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:
>
> Figured it out. Here are the files/notes that Stan wrote up for us...
>
> -----Original Message-----
> From: Bruce Moskowitz [(b)(6)@mac.com]
> Sent: Wednesday, March 21, 2018 11:30 AM
> To: Blackburn, Scott R.
> Cc: IP; (b)(6)@gmail.com
> Subject: [EXTERNAL] Stan Huff
>
> Can you send his notes to us? Thank you
>
> Sent from my iPad
> Bruce Moskowitz M.D.
> <suggestions to VA on the contract.docx>
> <Requests for Cerner EHR platform to Support Innovation and Interoperability smh.docx>
> <Copy of 003 - VA EHRM Non-Functional RTM (Amended 2.16.2018) smh.xlsx>

From: Bruce Moskowitz
To: Blackburn, Scott R.
Cc: Carolyn
Subject: Re: [EXTERNAL] VA-CIO CALL
Date: Monday, November 20, 2017 6:10:47 PM

Thank you for your response. I will be available for a phone call at a convenient time for both of us. Carolyn will set it up

Sent from my iPhone

On Nov 20, 2017, at 5:33 PM, Blackburn, Scott R. <Scott.Blackburn@va.gov> wrote:

> Dr. Moskowitz,
>
> Thank you so much for the note and for all the help/support. I would love to meet you in person. Do you have any plans to be in Washington anytime soon?
>
> I thought the call last week was extremely valuable. The experience and wisdom of the participants is such a great asset – we would be fools to not take full advantage of it. I do agree fully that there was a lot to cover in only two hours. I think the moderator was doing the best he could to get as much out of it as possible, while trying to be respectful of the time that so many important people were volunteering. If the 5 CIOs were willing to follow up, perhaps we schedule another session(s) on various deep dive topics? We would absolutely love that.
>
> Just by way of introduction – I jumped into the CIO role less than 2 months ago when our previous CIO (Rob Thomas) abruptly retired to deal with some personal issues. I am a disabled Army Veteran (MIT ROTC). After getting out of service I went to business school and then to McKinsey where I made partner and spent 9+ years there leading large business transformations in industrial clients. Bob McDonald (the former P&G CEO and former Secretary) convinced me to join VA to lead the turnaround after the 2014 Phoenix scandal. From Feb-Sept, I served as Secretary Shulkin's Deputy until a political appointee was put in place. Then jumped into the CIO role to work with the team and make sure this gets done. We are still awaiting a permanent CIO.
>
> I would be happy to jump on the phone this week to if you would like.
>
> Thanks again for your support!
> Scott
>
> Scott Blackburn
> Acting CIO and Executive in Charge, Office of Information & Technology
> US Department of Veterans Affairs

From: Bruce Moskowitz [(b)(6) @mac.com]
Sent: Monday, November 20, 2017 6:02 AM
To: Blackburn, Scott R.
Subject: [EXTERNAL] VA-CIO CALL

Dear Scott:

I thought the VA-CIO call November 15 to help you with practical industry expertise relating to your proposed Cerner implementation generated some valuable conversation. The participants were some of the most highly experienced CIOs with deep EMR backgrounds, together with physicians who focus on medical error prevention and improving the EMR experience. I hope and expect that you found it of great value. Since we have not spoken before, you may not be aware that I am the person who personally recruited the Academic Medical Centers to provide the VA with advice, intended to help the VA create and implement a path to fix its care delivery issues, as well as advise on other areas where they can be of value to better veterans' care. I have been a central point for the group and was the collection point for the participants' post-call debrief. Also, for reference purposes, each of the people on yesterday's call has performed flawless implementations of state of the art EMR systems on behalf of their respective healthcare delivery systems, some more than once.

Since the call was structured to focus the discussion on the few direct questions set forth in your agenda, and the moderator controlled the timing of each question very tightly, the breadth of the discussion was somewhat limited. As a result, you only had the benefit of the experts' advice in the areas that the moderator put on the table... and the participant's want to make sure you have the benefit of their complete thoughts and feedback. Everyone felt good about the discussion on the agenda questions and felt that the scope and implementation issues relating to DOD / VA interoperability were well in hand. However, some of the participants' questions raised about other areas left them uneasy about the readiness of the system for implementation or the readiness of the Cerner RFP contract for execution. Based on some of the offshoot discussions, the participants felt that many non-DOD interoperability solutions have not yet been fully addressed or solved, leading to incomplete system planning and contracting protections, greatly risking an unsuccessful implementation and large additional cost and time overruns. The interoperability with community provider partners did not seem to be defined completely. Some additional areas that were identified by the VA and its contractor's participants and moderator as incomplete in the call are: seamless sharing of Choice partner records, duplicate procedure and medical error prevention, flagging mechanisms and implantable device identification, among others. Until the design of the system and all functional requirements are identified and completed, the participants fear that these as yet undeveloped processes and solutions will result in a significant increase in the cost of the implementation and operation of the Choice program and impact quality care delivery to our veterans who choose to take advantage of the Choice program.

Lastly, at the beginning of yesterday's call your moderator identified the comfort that Congress expressed at recent hearings from the participation of the CIOs in the process. However, yesterday's relatively short discussion on a massive topic was limited and not set up to have a platform for full discussion in a two hour phone call with a few questions. Also, as mentioned in the call at various times, the participants' did not have access to the RFP contract document, its scope and the contractual provisions and protections, a critical part they feel of evaluating the completeness of a successful design and implementation. As such, the participants want to make sure that yesterday's discussion is understood by everyone - the VA and Congress alike - to be a limited dialogue to provide their valuable experiences on the topics put on the table by the moderator, but not as a confirmation of the project's completeness or readiness for contract execution or implementation, which they believe likely has shortfalls. In general, we liked what we heard, we are honored that you felt our advice would be of value, but have had discussion about a very limited part of the project and have questions about the system design, whether it is ready for implementation and whether the contract (from the limited discussion) has adequate safeguards to proceed without risk to the cost and success of the effort.

While this was the first time you have spoken to any of these participants on the topic of EMR, and maybe on any topic, the participants would be pleased to provide further feedback and advice should you desire on the remaining issues that are still incomplete and to help you work toward a successful RFP contract, design and implementation.

Sent from my iPad
Bruce Moskowitz M.D.